

Federal Reserve Board Oral History Project

Interview with

Wayne D. Angell

Former Member, Board of Governors of the Federal Reserve System

Date: December 9, 2009, and December 18, 2009

Location: Washington, D.C.

Interviewers: David H. Small and Adrienne D. Hurt

Federal Reserve Board Oral History Project

In connection with the centennial anniversary of the Federal Reserve in 2013, the Board undertook an oral history project to collect personal recollections of a range of former Governors and senior staff members, including their background and education before working at the Board; important economic, monetary policy, and regulatory developments during their careers; and impressions of the institution's culture.

Following the interview, each participant was given the opportunity to edit and revise the transcript. In some cases, the Board staff also removed confidential FOMC and Board material in accordance with records retention and disposition schedules covering FOMC and Board records that were approved by the National Archives and Records Administration.

Note that the views of the participants and interviewers are their own and are not in any way approved or endorsed by the Board of Governors of the Federal Reserve System. Because the conversations are based on personal recollections, they may include misstatements and errors.

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December 9, 2009 (First Day of Interview)

MR. SMALL. Today is December 9, 2009. This interview is part of the Oral History Project of the Board of Governors of the Federal Reserve System. I am David H. Small of the FOMC Secretariat in the Board's Division of Monetary Affairs. I am joined by Adrienne D. Hurt with the Office of Staff Director. We are conducting an interview with former Governor Wayne D. Angell, who served on the Board from February 7, 1986, to February 9, 1994. This interview is taking place at the Board in Washington, D.C. Governor Angell, thank you for making your time available to us.

Personal, Educational, and Professional Background

MR. ANGELL. Well, doing this interview is important because, while the future is exciting, the past is our link to ourselves and where we've come from.

I grew up during the Dust Bowl era. The Dust Bowl and the drought added to the economic decline that Governor Benjamin Strong engineered in 1924 when he had the objective of shutting off the flow of credit to the stock market.¹ He formed an ad hoc committee to get other Reserve Banks to participate in his open market operations designed to reduce reserves so that he could get interest rates higher. That played havoc with the economy, particularly the Midwest. And the impact was severe.

My Ph.D. thesis was on the history of commercial banking in Kansas (1854–1954); it was a story of deflations. The deflation that began in 1924 ran all the way to 1935 or 1936. Then the 1937 recession put it all back. The Midwest had a very severe period. Land prices and house

¹ Benjamin Strong, Jr., was the first president (at the time, the title was "governor") of the Federal Reserve Bank of New York. He served from October 1914 to October 1928, and exerted great influence over the policies and actions of the Federal Reserve System.

prices were falling. It had the same wealth effect then that it has had with our more recent experience with declining house prices from 2006 to 2011.

The Dust Bowl had the elements of weather, but it also had man's interaction with the economy. My grandfather invented the one-way disc plow. In 1926 and 1927, he got patents on the plow and the way it tilled the ground. An economist at Fort Hays College said a man named Angell created hell by making an implement that could be used to profitably farm land that could not have been farmed with the old moldboard technology. A moldboard plow would turn the dirt upside down. The moldboard plow would plow six to eight inches deep. My grandfather's one-way disc plow would only go maybe three inches deep and would leave a mulch on top. So in the semiarid region of the west—western Kansas, Colorado plains, western Nebraska, western Oklahoma, and western Texas—the plow made it possible to farm all those acres. And as my grandfather's implement became more widely used, the practice of summer fallowing would extend the storing of moisture a longer time. Rather than following crops harvested with a crop planted in the fall, the land would lie fallow an extra summer. So if you have a shortage of rainfall and moisture, one way to work against that would be to accumulate more rainfall before you planted another crop. If you had a crop only every two years, you would have a better moisture balance than you would have otherwise. Weather in the Midwest wasn't just a drought and low rainfall; it was a huge variability of rainfall from year to year.

Growing up in a family that had been involved in economic cycles developed my interest in avoiding that kind of episode. Today we've got economists and policymakers that want to avoid having another house-price decline, which wreaked havoc on our mortgaged-backed securities industries and all the derivatives. In the past, the Great Depression was the big event that you wanted to avoid. So my study of economics was a quest to find out what in the world

happened and how might you avoid doing that again. That carried over to the time that I became a member of the Board of Governors because, as my study in economics developed, I thought Milton Friedman was the one voice that needed to be heard. I grew up in the midst of a Keynesian revolution, and much of that didn't make any sense to me. It just didn't wash. But Milton Friedman did. So money as a cause of economic decline or economic prosperity intrigued me when I was a graduate student. That set me off on a course of studying economics, which culminated when I was appointed to the Board of Governors of the Federal Reserve System. But that's not exactly natural that you'd necessarily do that.

MR. SMALL. If someone were to grow up when you did but on the industrial East Coast with a lot of unions, wage contracts, and unemployment, they might look at the world and say it looks pretty Keynesian. If someone grows up out in the Plains with your family history, with a lot of independent farmers and local banks and the farmers' need for credit, one could think that the economy's much more driven from a quantity of money availability, quantity of credit, more naturally a monetarist type of view. Did growing up in the Midwest—with stunted banks and credit restrictions and that economic structure—influence your thinking?

MR. ANGELL. Well, yes, it did, but I will tilt the scale a little bit and say that economics is really about sound thinking. It's a way of being able to look at the world and to put 2 + 2 together to say, "These are the factors that cause an event." And when you do that and you want to explain it, what idea makes sense. I thought the idea that Milton Friedman suggested was right. If I could explain it to my children or I could explain it to my grandchildren, it worked. You have to ask yourself, what can a child understand? The attraction of teaching for

me was making economics understandable.² It was a common-sense approach. The economic theory either jibes with what you think is common sense or it doesn't. So I have a different view based on my background than I would have had had I been a part of a coal-mining community in which the working conditions for coal miners and other workers needed a remedy.

The Wagner Act remedied all that, in a way, because it swung the pendulum right to large labor, and it was based on the premise that an economic decline could be accompanied by a lack of a growth in wages.³ The Wagner Act enabled unions to increase wage rates until employment became a problem that gave rise to Keynesian economics. It is a little bit of what we're seeing now. So when President Barack H. Obama would like to see wages moving higher, that becomes the opposite of what his policies may tend to produce. That is, quite often we conduct economic policy not being aware that the policy alters the way people behave in a market system economy.

Growing up in an area where the price of wheat was very important had me ready to look at commodity prices. And by the time I got to the Board of Governors, I'd already pretty well decided that commodity prices would be a leading indicator about the economic future. So I came here with that prescription.

At my confirmation hearing, I made a statement to the Senate Banking Committee. Later, Paul Volcker complimented me when he invited Betty and me to his dining room before I was on the Board. He said, "Wayne, you've made the strongest statement for price stability that has ever been made by any member of the Board of Governors." That two-page statement came

² Dr. Angell began his career in 1954 as an instructor in economics at the University of Kansas. He went on to become an assistant economics professor at Ottawa University [in Kansas] in 1956. He became a full professor in 1959. He was dean of the college from 1969 to 1972. After a sabbatical, he taught from 1975 to 1985.

³ The Wagner Act, officially the National Labor Relations Act of 1935, established the National Labor Relations Board and eliminated employers' interference with the autonomous organization of workers into unions.

from my writing a piece in August 1985 in response to Senator Robert “Bob” Dole. Senator Dole said, “Wayne, if being appointed a member to the Board of Governors is important, maybe you ought to set down the essence of your view and what contribution you would make.” So I wrote that statement. I was getting ready to fly to Nebraska for a party for some friends with whom I’d gone to college. I scribbled the statement out pretty fast, and it became the focal point of what I wanted to do while I was a member of the Board of Governors.⁴

MR. SMALL. Did that request from Senator Dole come before you were nominated?

MR. ANGELL. Yes. Bob Dole was quite a politician. He had an effective methodology. He wanted to get people he knew into posts in Washington. Sheila Bair, who is still at the FDIC (Federal Deposit Insurance Corporation), was a Bob Dole find.

In my statement, I said that monetary policy can do a lot of harm. It was very Friedman-like to say that. It can aggravate an economic cycle, or it could reduce the amplitude of fluctuations. And discretionary monetary policy is really very dangerous.

I remember very well the first day Alan Greenspan came to the Board. I had responsibilities for the Board’s Bank Activities Committee for Reserve Bank oversight [Committee on Federal Reserve Bank Activities]. We were having a conference of chairmen meeting going on in the Martin Building. The chairman and the vice chairman of each Reserve Bank board of directors were there. Paul Volcker brought Alan over to the Martin Building.

Reserve Banks were involved in the search and selection of presidents, vice presidents, and auditors. The Board of Governors by law was required to approve Reserve Bank appointments for president. The first vice chairman and the chairman all had to be approved by

⁴ Wayne D. Angell (1986), “Statement of Nominee Dr. Wayne D. Angell,” in *Nominations of Wayne D. Angell and Manuel Homan Johnson, Jr., Hearing before the Committee on Banking, Housing, and Urban Affairs*, U.S. Senate, Jan. 23, 1986, Senate Hearing 99-530, 99 Cong. (Washington: Government Printing Office), pp.10–12.

the Board of Governors. And the Board's Reserve Bank Activities Committee was involved in bringing those people there.

When Paul brought Alan over, we were sitting at a round table in a conference room. Paul took Alan around the circle and introduced him. I was three-fourths of the way around the table. When Alan walked up, he said, "Governor Angell, it's nice to see you again." I thought to myself that I'd not met Alan in person before that, but I had seen him on television. He said, "The last time I saw you, you were on television." Paul said to Alan—at least Alan told me he did—that he would recommend that Alan keep close track of Johnson and Angell. [Laughter] That came about due to the fact that we had that rather famous 4–3 vote in February 1986, less than a month after I arrived on the Board.

I had a link to Manuel H. "Manley" Johnson before I met him. He was a student of one of my students. Jim Gwartney, who was my student at Ottawa, had written a textbook at Florida State, now in a 14th edition, and Manley was a graduate student at Florida State. At the Board, Manley and I became well aware that we would have deciding votes. We realized that we had the choice of whether we wanted monetary policy to move in the direction it had been going or to go in another direction.

MR. SMALL. Was that because the rest of the members were split?

MR. ANGELL. Well, yes, and they were predictable. It seemed that Vice Chairman Preston Martin never saw an interest rate decrease that he didn't like and never really saw an interest rate increase that he did like. Martin and Martha Seger shared an extremely easy money position. As far as I could tell, they were always going to vote an easier direction and would never be counted on to be standing up for price stability. President Ronald Reagan appointed all four of us—Manley Johnson, Martin, Martha Seger, and me. I felt fortunate to be appointed to

the Board by a President who wanted the dollar to be strong. Ronald Reagan never wanted a weak dollar. If you want a strong dollar, and if it's going to be strong against other currencies, it most likely will be strong against gold and other commodities.

What made the 1980s work so well was due to the price stability preference of Paul Volcker. I was always very impressed with Paul Volcker. I knew Paul before I became a member of the Board of Governors, when I was a member of the Federal Reserve Bank of Kansas City board of directors.

When I was a member of the Kansas legislature, I ran for the U.S. House of Representatives—the 3rd District seat in Kansas, which included Kansas City. I didn't get the nomination. Larry Winn got the nomination. To satisfy my damaged ego, I decided to run for the board of directors of the Federal Reserve Bank of Kansas City. Many people think about running for a Federal Reserve Bank directorship, but I'm not sure how many have done that. By law, the A and B directors are elected by the Reserve Banks and the C directors are appointed by the Board of Governors.

I started my political career in 1960 after getting a Ph.D. in 1957 from the University of Kansas. A couple of years went by, and I thought life wasn't quite as exciting as it might be, so I decided to run for the Kansas House of Representatives in March 1960. In a way, running for the state legislature shaped me and put me on a track that was very important throughout my career. My great uncle had been a representative for Meade County, Kansas. That background may have inspired me as something I might do. Not all new Ph.D.'s decide to run for the state legislature.

Robert Anderson, who had been the previous representative, told me that Kansas law limits the amount of expenditure[s] on election campaign[s] to \$150. At that time, the U.S.

Supreme Court hadn't yet concluded that campaign expenditures by a candidate were free speech. Later, the court began to interpret that it would be an impediment to free speech not to let a person use their money to buy a microphone. But at the time, the individual said to me, "Wayne, you don't need to worry about the \$150 limit. When you run, you are limited to \$150 in the primary, and you're limited to \$150 of your own money in the general election. But don't worry. You can form a political action committee, and there's no limit on what they can spend." My immediate reaction was, "You really expect me to violate the spirit of the law, which is very clear and understandable, in order to be a legislator? Why would I want to violate the spirit of that law to become a legislator?" [Laughter] So I decided that I was going to spend less than \$150. I spent \$147.

I practiced at running on a low budget. On 3x5 index cards I put the names of every household that voted in Franklin County and the Republican primary in 1958. I arranged the cards according to the streets where they lived, so when I walked down the streets I had these stack of cards that told me the names of the people, and I was able thereby to call them by name, if I knew them. I knocked on all those doors. Ottawa, Kansas, had about half the county's population. I also did it in Wellsville and other small towns. I knocked on the doors and asked people for their vote. I found out that people like to be asked for a vote from the person running for office.

A college professor was not particularly the ideal candidate for the nomination, particularly one who had grown up in southwest Kansas and was running for a legislative seat that was only 50 miles from Kansas City. Everybody said that there was too much representation in western Kansas. In the Kansas House [of Representatives], each county had one representative. There were 125 representatives, and each of the 105 counties had one

representative with only 20 to spread around in regard to population. So it was very geographically determined. Western Kansas had way too much representation. So how could I run? There's no doubt that I have a lot of economic interest and history in western Kansas. I wasn't ideally situated to get that nomination. The candidate I was running against in the primary was president of the Franklin County Farm Bureau. He was a wonderful, honest person, full of integrity.

MR. SMALL. This was the Republican primary.

MR. ANGELL. This was the Republican primary. In Franklin County, Kansas, if you get the Republican nomination, you were pretty well in.

The Republican Party was born out of the Civil War. Abraham Lincoln came to Kansas to make a speech. The Republican Party came out of the antislavery abolitionist movement. In the rotunda of the Kansas State House in Topeka, there's a two-story area in which there was a picture of Kansas's hero, John Brown. John Brown is the epitome of the Kansas mission: being involved in abolitionism. John Brown wasn't a Martin Luther King in regard to not using violence. He wanted to use whatever force and power he could get.⁵

The college where I taught, Ottawa University, was an endowment from the United States government of land set aside to help educate the Ottawa Indians. The Ottawa Indians had been kicked around from Canada to Michigan to Illinois and Ohio. Tauy Jones, the first president of Ottawa University, was part Indian, and he was friends with John Brown. On Tauy Creek, just three miles northeast of Ottawa, was the Tauy Jones house and homestead. In that house he had a tunnel from his cellar out to the banks of Tauy Creek. He used that as a part of the Underground Railroad. So I was kind of a part of that history. I was through-and-through a

⁵ John Brown was an abolitionist who believed that armed insurrection was the only way to end slavery in the United States.

President Lincoln Republican. And I really thought that private property was an essential element of people's freedom.

MR. SMALL. You're giving a somewhat different characterization of Republicans back then than what people might now think.

MR. ANGELL. Yes, because the Republican Party got lost. It lost its Lincoln heritage of commitment to freedom for everyone. At that point, the Democratic Party in Kansas would be a little more "preserving the existing order." Of course, there was some affinity for the New Deal and Franklin Roosevelt, but for issues of the state, there wasn't that much difference.

I'm talking about things that shaped me—running for office and refusing to overspend during my campaign, staying within the \$150 limit, even though you could make an argument otherwise. Even though people thought the limit infringed on free speech, I wanted to be in accord with the law. I didn't want to be elected by using my own money as a professor or from the farm partnership I participated in while in western Kansas as a professor. And when I arrived at the state legislature in January 1961, I didn't have any obligations to anyone. I didn't ask any group for campaign contributions. I was just as free as I could be. And I had tried to be as clever as I could as a politician.

I was always a John Anderson Republican; he was one of the candidates for governor.⁶ John Anderson was a moderate Republican who wasn't against civil rights. Alf Landon, the former candidate for President who came from Kansas, was also a moderate. And, in fact, before I decided to run for the United States Senate, I went to see Alf Landon, and he said to me, "Wayne, of course I'd support you, but I've got a little bit of a problem. Nancy Kassebaum has some notion she may want to run." [Laughter]

⁶ John Anderson, Jr., was the 36th governor of Kansas, from 1961 to 1965.

MS. HURT. You ran for the U.S. House of Representatives and the U.S. Senate as well as the Kansas House of Representatives.

MR. ANGELL. I don't always want to trump out that I had two losses. [Laughter] I served three terms in the Kansas House, and I decided that I wanted to run for the Congress. Franklin County was the most rural county of the Kansas City Metropolitan District, and that was quite an uphill race. While I was able to get 14–1 in Franklin County, I would get beat 2–1 in Wyandotte County, and so I lost the nomination for the U.S. House of Representatives.

I began teaching economics full time at the University of Kansas when I was 24. I had received my master's degree and done my course work for my Ph.D., and they asked me to teach at the University of Kansas. Well, lo and behold, I fell in love with teaching, which surprised me, because I hadn't intended to do that. Teaching economics is about sound thinking. Trying to get that sound-thinking point of view over to students was an important task. I always thought that teaching was entertaining. That is, as a teacher, I thought my job was to entice students to have them be attracted to economics.

I taught a class in Snow Hall, which is right next door to Strong Hall, where I had my office. I had a 9:00 class there. One morning as I walked in, John Ise, the somewhat famous Kansas University economics professor who wrote a textbook in economics, was there in the doorway. He said, "Mr. Angell, do you mind if I stay in your class? Because I don't want to have to go back in the snow to my office and then come back again." John Ise was somewhat physically handicapped. I don't know whether he had polio as a young man or what it was. I lied and said I didn't mind. [Laughter] The reason that I might mind was that the textbook we were using wasn't a textbook that, as professors, we were free to choose. The textbook was John Ise's *Economics*. So there I was, saying, "Ise thinks this, but I would think another perspective

might be brought into play here.” I didn’t want to get caught with the students thinking that, with John Ise there, I was different.

MR. SMALL. Did he say anything to you after the class?

MR. ANGELL. He said something complimentary. I had a good, warm feeling about and with John Ise.

I had two five-hour classes in economics, and I had one three-hour engineering econ course. The engineering econ students had a tendency to be more concerned about their calculus and some of the other things than they were about economics. I had one student who kept nodding off and going to sleep in class, which was an affront to me. I had a seating chart, so I knew the names of all the students. One day I called him by name and said, “If you want to sleep, why don’t you move your seat back behind the post? There’s no real harm if you get behind the post and sleep, but I don’t want to see you sleeping.” [Laughter] Teaching economics became important, and I never have quit because, as a member of the Board of Governors, we were often involved in our arguments for whatever we wanted to do. It was a kind of methodology that was close to teaching and learning.

MS. HURT. So you had a love of teaching, then you went into the Kansas State House of Representatives, and you were reelected twice, in 1962 and 1964. Then you were elected as a member of the board of directors at the Kansas City Federal Reserve Bank.

MR. ANGELL. Instead of serving a fourth term in the Kansas state legislature, I ran for the United States House [of Representatives]. When I started on that election, there were seven of us running for the Republican nomination for the U.S. Congress.

When I got to the state legislature, I didn’t have any obligation to anyone, so I didn’t have any bills I needed to pass. The bill drafters were turning out all these proposed bills. I

started reading those bills and thought, “Boy, I don’t like that. I don’t like that. I don’t like that.” So I decided that I would make killing bills the heart of my efforts as a legislator.

I had a little protection, because the candidate I was supporting for a Speaker of the House, Bill Mitchell, was also supporting John Anderson for governor. I called Bill in August and said, “I just want you to know that I’m going to vote for you for Speaker.” Well, candidates for Speaker weren’t used to having just-elected legislators calling them and volunteering their support. He said, “Wayne, how did you decide to support me?” I said that I called governor-elect Anderson and asked him whether he had any preference in the Speaker’s race, and the governor-elect said, “No, I don’t have any preference.” I said, “Well, governor, if you don’t have any preference, that tells me you must be supporting Bill Mitchell, because if you don’t have a preference, Bill Mitchell is certainly going to win, so I presume that’s okay with you.” The governor laughed, and Bill Mitchell laughed when I told him the story. He thought that was some story, so he said to me, “I want to be helpful as well.” I said, “Well, you can be helpful. I want to be a member of the appropriations committee.” The Kansas legislature called it the Ways and Means Committee, which is a misnomer in regard to the way the U.S. House calls the Ways and Means Committee, which involves taxes. But in the Kansas House, Ways and Means was the appropriations committee. I said, “Bill, the problem is that the former representative from Ottawa was chairman of the Ways and Means Committee. If I don’t get on the Ways and Means Committee, the people in Ottawa are going to think I’m nobody, so I really want to be on there.” [Laughter] So he kind of gave me a ticket to be on the appropriations committee as a freshman. That made it a little easier for me to engage in my pursuit of being a bill killer. If you’re going to set out to be a bill killer, you’re not going to gather a lot of enthusiasm from your

fellow legislators if you go out there killing their bills. But if you're on the appropriations committee, they can't write you off, because they may need something from you.

I became very practiced and accomplished at killing bills. I knew all the ways to do it. One story: The barbers and cosmetologists wanted to change the law so that you couldn't become a barber or a cosmetologist without a high school degree. I thought, "Wait a minute. What are the people who don't get high school degrees going to do if they can't be barbers or cosmetologists?" The proposed bill increased the barber training and cosmetology training from six months to nine months. So I wanted to kill that bill. I thought of a very simple and understandable amendment that I could make. I went to the bill drafter and said that I wanted to amend the bill to say that, during the extra three months, each of the candidates would be taught how to care for the hair of every ethnic group in Kansas.

Then something happened that surprised me. The day the bill came up on the House floor and we were acting on it, there was a group of visitors on the balcony. The League of Women Voters had chosen that day to visit the state legislature. They heard my amendment read, and they stood up in the balcony and applauded. The bill became a civil rights bill, and it became law. When I went home from the legislature and walked into the barbershop, there were some of our black students from the college in the barbershop. And, lo and behold, I guess if the barber training was going to teach the barbers how to do every ethnic group in Kansas, they no longer seemed to want to use the line, "I don't know how to cut your hair."

Bill Haley was one of the other candidates who got in the race for the House seat in the Congress. Haley decided to run when James Meredith was shot. They had been classmates at

Mississippi.⁷ Bill called me and said, “Wayne, I feel like I have to run for this congressional seat. With Meredith being shot, I just feel that that’s what I need to do.” I said, “If you do, you’re going to lap Larry Winn, who won’t even sign the Fair Housing Pledge.”

Until Bill entered the race, I was counting on winning in Wyandotte County to make up for the votes that Larry Winn was going to get in Johnson County, because Johnson County outvoted Wyandotte County about 3–1. Bill was the brother of Alex Haley, the author of *Roots*. He was first written about in a *Reader’s Digest* article. I think it was called “My Brother Bill.” The brothers grew up in Mississippi. Bill had decided to do law school work at the University of Mississippi. He had difficulty getting admitted to the law school because of what was going on at the time. Either President Kennedy or President Johnson was involved in opening up that law school to all students.

About the barber bill, Haley said, “Wayne, you were always out there *doing*—you weren’t the kind of legislator that we had to corral to get to do what we needed to be done. You were always thinking up new ways to do them.” I said, “Well, the problem with your story is that I was trying to kill the bill.” [Laughter] Bill-killing was part of what I did, except the barber bill was passed.

I took second in the voting for the House seat, but there are no prizes for taking second. And Kansas didn’t have a runoff system.

I ran for the United States Senate, and Nancy Landon Kassebaum also ran. Nancy taught me a few things. She taught me that it’s very successful in politics to be yourself. She was running for the United States Senate saying that she was a housewife. She talked about going to

⁷ In 1962, James Meredith was the first African American to attend the University of Mississippi, a significant event in the American Civil Rights movement. In 1966, he was shot in an assassination attempt during a civil rights march for voting rights in the South.

the store and all these things. She was an excellent candidate. She ended up winning 35 percent of the vote, and I ended up with 31 percent of the vote. If we'd had had a runoff, I would have beaten Nancy. But she was a very successful United States senator, and I commend her for that. She comes out of my wing of the party, which was always thinking clearly.

MS. HURT. Sometimes it's difficult to characterize a political affiliation. I thought that Nelson Rockefeller, Kassebaum, and Jacob Javits were considered at the time to be moderate Republicans. I recall an expression "Rockefeller Republicans," which I equate today with those considered to be moderate Republicans.

MR. ANGELL. Right. Well, in that primary, I was for Rockefeller over Goldwater, and I got a lot of flak from it. A lot of people said, "Wayne, you're a conservative." I said, "Yes, I am a conservative, but Goldwater, my goodness, I heard him in Topeka. Goldwater wants to keep price supports on for farm products. So is he really a conservative?" Being a conservative, to me—I'm for a market price system economy and I'm for private property rights, but that doesn't mean that I favor everything that every conservative favors. So I was sort of a—

MS. HURT. Free spirit?

MR. ANGELL. Yes, but I didn't have any doubts about where I was on any of these issues.

That reminds me that when I was here at the Board of Governors, every quarter we would have a meeting with the Council of Economic Advisers. At that time, all of the members of the Board of Governors had been appointed by a Republican, and the Council of Economic Advisers was appointed by a Republican. I was going over to the luncheon in the Martin Building. I said something about "When in doubt," and one of the members of the Council of Economic Advisers said, "Wayne, when have you ever been in doubt?" [Laughter]

I was always on a mission. I didn't think you ought to be in office just to be in office. You ought to have a mission. And when I was appointed by President Reagan to the Board of Governors, it didn't take me long to get a mission. That mission was and still is price stability.

The Federal Reserve Act is defective in giving the Federal Reserve two objectives. I want one, because I believe that, if you pursue the objective of price stability, you're going to get better growth of employment than you would if you didn't pursue that objective. I'm enough of a Friedmanite to believe that the dangers of discretionary monetary policy are: You may choose what is popular in monetary policy when you ought to go against the grain, not go with the grain; [and] you ought not to ease capital requirements when you're in an economic boom and house prices are rising, you ought to tighten capital requirements during booms. So I really wanted economic stability.

MR. SMALL. A while back in this interview, you mentioned the 4–3 vote that went against Paul Volcker shortly after you arrived at the Board. Paul Volcker was leading the charge against inflation.

MR. ANGELL. When I made my statement in front of the Senate Banking Committee and came to have lunch with Paul Volcker, he said that was the strongest statement for price stability he had seen. Paul Volcker was clearly the most outstanding Chairman the Federal Reserve has ever had. Paul Volcker had a mission, and he stayed faithful to that mission. My disagreement with Paul Volcker, you might say, was over tactics. I felt that we were getting deflationary signals from commodity prices. If we had not acted, a recession was likely to follow that would leave interest rates too low.

Director at the Federal Reserve Bank of Kansas City

MR. SMALL. Before we get too much into Volcker's chairmanship, let's talk about your activities on the board of directors at the Kansas City Federal Reserve Bank. Did you have a particular mission or perspective?

MR. ANGELL. I became a member of the Board of Governors in 1986. I'd been a director at the Kansas City Federal Reserve Bank for six years. That's around the time that Paul Volcker initiated his contribution to price stability. As a director, I wanted to have this price stability commitment. We had back-to-back recessions in 1980 and 1981, 1982 that had an adverse impact upon economic output, and then the unemployment rate rose pretty high. I presume the unemployment rate got up to 11 or 12 percent in 1982. By law, we had to submit a written request for a discount rate every two weeks to the Board of Governors. So, as a director of Kansas City, I was voting for a lot of discount rate increases early in my time at the Federal Reserve, and I didn't have any disagreement with where Paul, the Board of Governors, and the FOMC were going with monetary policy. The interest rate—the discount rate—went to 21 percent.

But the discount rate at that time was bifurcated. There was a discount rate for the major banks, and there was a different discount for the so-called country banks. There were a lot of banks that were country banks that didn't think of themselves by this definition. The Reserve city banks, I think, were caught with a much higher discount rate than existed. That differential at one time was 4 or maybe 6 percent. We know the target fed funds rate went to 21.

MR. SMALL. For the discount rate series, the highest was 14.

MR. ANGELL. And then there was the surcharge.

MR. SMALL. The primary discount.

MR. ANGELL. Right. And then there was a surcharge for the big banks. That varied between 2 and 4 percent?

MR. SMALL. I don't remember.

MR. ANGELL. It may have been $14 + 4 = 18$. Anyway, as a director, I voted for a lot of discount rate increases. Paul Volcker led the great progress that Ronald Reagan as President had asked for. Paul began raising rates more quickly than ever before after the FOMC cut rates.

In 1983 and 1984, the FOMC was raising the rate again, and I was voting for those rate increases. By the time I became a Board member, commodity prices were showing their way down. As a director in Kansas City and in the monthly meetings in August, September, October, November, and December, I voted for more discount rate cuts, because I saw commodity prices telling me that monetary policy was too tight. So I got to the Board of Governors at a rather unusual time. My commitment was to price stability, but I didn't want to have deflation. I didn't want to take disinflation to deflation, so I thought that the discount rate ought to be reduced. When I joined the Board of Governors, I believe the discount rate was 7.5 percent.

MR. SMALL. Yes, that's right. The discount rate was lowered to 7 in March 1986. It had been 7.5.

MR. ANGELL. Right, 7.5 is where it was. So, as a director of Kansas City, we were voting for lowering the discount rate.

February 1986 Vote Challenging Chairman Volcker

MR. ANGELL. When I got to the Board, Manley Johnson and I soon began to have rather close discussions. I said to Manley, "Whatever the case, we get to decide. But if we do the wrong thing, we may as well pack our bags. The wrong thing would be to do something that would cause Chairman Volcker to resign."

In school, I minored in philosophy, not in politics as was quite ordinary for economic Ph.D. candidates. Economics is all about human behavior. Predicting behavior was helpful to me in the Kansas legislature, because I wanted to know if I do this, how will the votes change. That's what was involved in the barber bill, about cutting the hair of every ethnic group in Kansas. I didn't think it would become a civil rights bill. I thought the sponsors of the bill wouldn't want the bill. I thought they would want their own bill, and so it would just languish and die.

Predicting behavior was part of the modus operandi that I have had. And I wanted to predict how Paul Volcker would vote. The worst thing for Manley and me would be to have Paul resign. My prediction was that he wouldn't resign. I thought he liked being Chairman.

MR. SMALL. You thought that he would go along with cutting the discount rate.

MR. ANGELL. Well, I didn't know how that would work out. You have an unusual situation for two members of the Board of Governors. We had the deciding votes. If you get to decide after being here for six years, that's one thing. But if you get to decide after being here 13 days, that's something else.

MS. HURT. You had deciding votes because, as you said earlier, the positions of other Board members were predictable?

MR. ANGELL. Right, right. I knew how it would go. We were sworn in on February 7, 1986, and there were FOMC meetings on February 11 and 12. I became a Board member on Friday, and the FOMC [meeting] started on Tuesday of the next week.

After the 4–3 vote, one of the staff people said, “Governor Angell, you surprised us. At the FOMC meeting, you just voted 10–2 with the majority to leave monetary policy unchanged.”⁸

⁸ There are 12 votes on the FOMC: the 7 members of the Board of Governors, the president of the New York Fed, and a rotating schedule of 4 additional Federal Reserve Bank presidents.

Today in the Board meeting, you've made this motion to lower the discount rate."⁹ At that time, which was very fortunate for Manley and me, the FOMC only set the spread between the discount rate and the fed funds rate. The spread was what the FOMC controlled, and the Board of Governors controlled the discount rate. I said, "That's very simple: 4-8 loses, 4-3 wins. So that's why I voted differently, because I wanted to get the discount rate lowered."

Federal Reserve Banks had been asking for a cut in the discount rate. But by February, we begin to get fewer banks asking for a discount rate cut. They got down to the place where there was only one Federal Reserve Bank asking for a discount rate cut. I didn't know how the politics went to the Board, because I'd never been in a Board meeting where anybody made any motion to do anything. I didn't know how it all went. But as long as a Federal Reserve Bank was asking for a discount rate change, I knew it was a part of the agenda. So I made the motion that morning because I was afraid we were about to run out of discount rate request changes. If we did, I didn't know whether I could get my motion on the agenda. I wanted to act when it was on the agenda. So that morning we came to that point, because that was very early in the agenda. I said, "Mr. Chairman, I move that we lower the discount rate from 7.5 percent to 7." The motion was quickly seconded by the Vice Chairman Preston Martin. Manley chose to stay back, but I wasn't worried, because I knew I could depend on him. Manley didn't want to change the commitment he had made with me. Neither of us wanted Volcker to resign. Both of us thought that Volcker was a good Chairman. He had the guts to go out and do price stability as no one had done—taking the rate to 21 percent, the target fed funds rate. You don't need more proof than that.

⁹ Governors Angell, Johnson, Martin, and Seger outvoted Chairman Volcker 4-3 on February 24, 1986, over the issue of changing the discount rate. The action was later reversed before being announced.

At that time, the Chairman would sit up at the end of the table. Paul leaned back in his chair and said, "You know what the headlines will be." Well, Manley had gone through this a million times, and he wasn't startling me with this, because I expected that from him. Then Volcker said, "You guys are going to have to write the statement for the press." Manley and I set out to write the statement. That was every bit okay.

Preston Martin decided it would be a good idea to get me out of the Board area, so he invited me, and I went with him to a conference of chairmen. This happened pretty quickly once the agenda got there, the motion was made, and we voted 4-3. I knew that Henry Wallich and Emmett Rice weren't going to vote for the cut in the discount rate, but I was quite sure that Martha Seger, Preston Martin, Manley, and I would vote for it. So there would be a 4-3 action.

MR. SMALL. You talked to Manley about this. Did you talk to Martha or Preston?

MR. ANGELL. No, no, I never talked to them. I didn't think I needed to talk to them. They were so predictable that I didn't have to learn anything about how they would vote.

When I came back from the conference of chairmen meeting, I walked down the hallway right past Catherine Mallardi and the Chairman's office. I didn't get quite to my door when Mart Cheri, my assistant, stepped out. She said, "Governor Angell, the Chairman wants to see you." I don't think I even went in my office. I went to the Chairman's office. I told Catherine Mallardi that I was there to see the Chairman. She said, "Governor, go on. The Vice Chairman will be along shortly."

When I walked in, Volcker was sitting down. He stood up from behind his desk. I don't know if we said "Hello," but Volcker cleared his throat to see if I would say anything. I wasn't about to say anything, and he said, "Well." I said, "Well." And then he got right to it. Surprisingly, he said, "Do you want me to be Chairman?" I had just been there two and a half

weeks. I knew that the President of the United States appoints the Chairman, so it wasn't my job to appoint the Chairman. I said, offhand, "Do you want to work with us?" He knew "us" meant Manley and me. He thought that was a pretty good answer, so he said, "If I have some time, I think the Bank of Japan and the Bundesbank would cut rates also, so we wouldn't have an adverse impact on the dollar." I said, "That's the very best of everything, as far as I'm concerned, for that to take place."

I started to say that we could do that, when in comes the Vice Chairman. Now, I'm not going to give you this conversation verbatim. Preston Martin isn't around, and I suppose you don't have any statement from him. Preston Martin and the Chairman weren't very comfortable with each other. They were two people at odds. Preston Martin said something to the Chairman that I'm not going to repeat, but the essence of it was: We may not know what you will do. Preston Martin sort of said, "I don't want to make a deal with you, because I don't know whether you'll keep it." I thought it was clear off the wall. I couldn't believe he would say that to somebody.

MS. HURT. Those comments had to do with getting Japan to cut rates?

MR. ANGELL. Yes—time for the Chairman to get the Bank of Japan to lower rates, which is exactly what I wanted, because I thought that with commodity prices, with the situation we were in, we needed that. And I wanted a strong dollar as well, but I didn't think the dollar would fall.

I had been having conversations with Volcker every three or four days trying to get him to the point of view that we might lower the rates. But it became clear to me that he was not going to go in that direction, so it would be necessary to have the vote. But between the Vice Chairman and the Chairman, it got so hostile that Paul looked at me again and said, "Do you

want me to be Chairman?” I said, “Mr. Chairman, having voted with the majority, I’m in a position to move to reconsider. So you call a Board meeting right now in your office, and I will move to reconsider.” Of course, Paul liked that. And that’s just what we did. I think we only had four or five people there. We moved to reconsider and gave the Chairman the time to do what he needed to do about the Bank of Japan and the Bundesbank.

I was very happy with that outcome. I wasn’t on pins and needles, because I was sure that was going to happen, except that I didn’t know that the Chairman would say what the Chairman said: “Do you want me to be Chairman?” That was unexpected. I didn’t have to stop and think or say, “Wait a minute. I need to call Manley.” I knew where Manley was, and I knew Manley would go with me on this. So I was very comfortable with all that.

MS. HURT. Early on, you said that after the vote in the Board meeting, the Chairman said something to the effect that Manley and you need to write that statement. Was a statement ever written?

MR. ANGELL. A statement was written about what we announced. But after we moved to reconsider, and that motion had passed and we did reconsider, then there was no discount vote statement to be made. It is important to be dealing with people that you know will do what they say. I knew when Paul Volcker said something, his word was his bond, and that he would do that.

MS. HURT. Chairman Volcker never said anything about wanting time to persuade Japan and Germany to lower rates as well before your motion to lower the discount rate?

MR. ANGELL. Before I made the motion, he was not open. If Paul had been open to lowering the discount rate, the motion wouldn’t have been desirable or necessary. He repeated, “The free-falling dollar, the free-falling dollar.” And one time I said, “Well, Mr. Chairman, the

dollar won't have as far to fall as it would have two months ago." The dollar was not strengthening during this period.

MR. SMALL. So there seems to be important political science lessons here about how you constitute a Board and the people and trust. Were suspicions or tensions raising that—

MR. ANGELL. Well, I was not driven by strategy or tactics. I was driven by principle.

MR. SMALL. You were saying that the Chairman and Vice Chairman were at odds.

MR. ANGELL. Well, that had been very well known. Vice Chairman Martin came back from Japan and said some statement that was in the newspapers that Volcker considered inappropriate, so they had been engaged in a fair fight for some time before that.

MR. SMALL. How'd you get along with Chairman Volcker after this?

MR. ANGELL. Well, it cemented our relationship. Paul Volcker and I were about as close as you can be. Paul Volcker and I are as close as Alan Greenspan and I are not.

MS. HURT. When your assistant said that the Chairman wanted to see you, what were you thinking at that time?

MR. ANGELL. I thought, "That sounds like a good idea," because I knew that there was unfinished business.

MR. SMALL. You said that the Vice Chairman questioned whether he could believe that the Chairman would follow through.

MR. ANGELL. Yes. More along the lines of: If we make a deal with you, how do we know you'll keep it? It was something like that.

MR. SMALL. I can imagine, at that point, someone in your position saying, "This could go off the rails."

MR. ANGELL. Well, it went off the rails because Paul didn't want to have any more conversations with the Vice Chairman. So he turned to me and said, "Do you want me to be Chairman?" And I responded at that point; I voted with the majority: You call a meeting, I am eligible to move to reconsider.

MR. SMALL. Your concern focused on commodity prices. What were Manley Johnson's views?

MR. ANGELL. Well, Manley had a different point of view, but he thought commodity prices were another bit of evidence.

I specialized in commodity prices. We put together a group here at the Board of Governors. There was no agricultural economics at the Board really, but some of the staff people had been working on that. [Peter] Tinsley and who else directed their attention to developing a commodity index.

MS. HURT. There was a quick turnaround in your position within several hours where, first, you voted for the discount rate change, then there were some words by the Chairman, and then you decided that you would reconsider your position.

MR. ANGELL. In the Board Room, if the Chairman said, "Wait a minute. Let's think about this. Is there any other way we can go here? Do we need to do this today?" I would have been ready to go with that earlier, but we had to get Paul to the place that he was ready to do that.

Pre-nomination Inquiry

MR. SMALL. At the time of your nomination to the Board, there were press reports of a telephone call from the Fed to the White House passing along derogatory information about Midwestern banks operated by you. The controversy was your first tough issue with Chairman Volcker.

MR. ANGELL. I was an owner of a small bank holding company. Class A directors are appointed from small banks, medium-size banks, and large banks. As a small bank, we were under the supervision and regulation [of the Fed]. The supervision and regulation guy was Tom Mahoney. I was working with Tom in regards to those banks, and there'd be times that examiners would come to those banks. Apparently, I developed a reputation with examiners as an antagonist by injecting my views. So when I was nominated by President Reagan to become a member of the Board of Governors, some people at the Kansas City Federal Reserve Bank—I don't know whether it was in supervision and regulation—said, "I think these exams of Wayne's banks ought to be sent to Paul Volcker."

Someone was pouring sand in my boot at a rather inconvenient time, wanting to get this information back to Paul. When Paul got the information, it was a difficult thing for him to deal with. What should he do? Did he have any responsibility to Jim Baker and others? Mike Bradfield, the Board's general counsel, took the view that it was irrelevant, but he ought to do it.

While I was traveling from Kansas to Washington, Bob Dole got information about what was going on. He said, "Wayne, you may have a problem, so you better get in to see Volcker." Fortunately, I did, because I had to deal with Paul Volcker at a time ahead of the monetary policy questions. So when I was confronting Paul and he was confronting me on monetary policy, we had already had a kind of dispute, because I'd walked into his office and I said, "Paul, you've got records from the Federal Reserve Bank of Kansas City about these exams. Now, what have you done with those records?" He said, "I sent them to Jim Baker." I said, "I would like to ask you to request to get those back." And let me give you an impression. I said, "If someone is behaving in ways you don't want them to behave, you say, 'I'll get a telephone pole and I'll break your legs.' It isn't going to go down well if it is heard that you, the Chairman, are

intervening in the President's right to appoint members of the Board of Governors. Paul Volcker shouldn't be involved in that. That's not the job of the Chairman." So I had a significant confrontation with Paul over this issue prior to our doing the monetary policy.

MR. SMALL. There were some newspaper articles speculating that Volcker was trying to thwart the nomination.

MR. ANGELL. Yes.

Federal Reserve Banks

MR. SMALL. People who are critical of the Federal Reserve look at the appointment process for Reserve Bank presidents. With Reserve Banks being private-sector entities, there is criticism about an inherent conflict of interest in having bankers on the board of directors of the Reserve Banks appointing a Reserve Bank president, with the belief being that bankers would not want a Reserve Bank president who's going to be tough on, let's say, regulation and tough on their banks.

MR. ANGELL. I never found it to work that way at all. I've been around quite a few fellows with banks in regard to the choice in the president. I've never known that to be a dangerous problem. By and large, the board of directors at Reserve Banks want a capable president. They don't go after someone who's going to hide the truth or mess them up or do this kind of a deal or that. So I think the concern you mention is way overblown.

The directors of Federal Reserve Banks are going to be the best public stewards they can be. Going back to the 1980s, we've had a few instances in which there were directors that violated the law in regard to the private information the directors get about monetary policy and

taking positions in the market.¹⁰ One director at the Federal Reserve Bank of New York got into trouble on that. I don't know whether or not he went to jail, but he was certainly pulled out of his responsibilities as a director.

MR. SMALL. There have been several bank crises—Continental Illinois and Penn Square, for example.¹¹ The Board has the legislative authority for supervision and regulation, which it delegates to Reserve Banks. When a bank goes bad in a District, did the board of directors question the Reserve Bank president?

MR. ANGELL. I don't think so. The biggest example of a bank crisis was Continental Illinois, and I don't know that the board of directors of the Federal Reserve Bank of Chicago got into that question.

MR. SMALL. Should they have, because of the issue of accountability?

MR. ANGELL. Well, yes, they should have. The board of directors ought to be overseeing that part of bank supervision and regulation. But the Kansas City Reserve Bank and its supervision and regulation department sort of protect themselves. If they needed to, they would get the directors lined up to understand what's happening, what has to happen, and why.

I don't see the conflict of interest argument about Bank presidents and boards of directors as being critical. It's more so on paper than it is in regard to actuality. The boards of directors at Reserve Banks are charged to consider the public responsibility involved. I think that dominates their actions.

¹⁰ Editor's note: Federal Reserve Bank directors became subject to the financial conflict of interest statute, 18 U.S.C. 208, by the Federal Reserve Reform Act of 1977, Pub. L. 95-188.

¹¹ In May 1984, Continental Illinois National Bank and Trust faced a solvency crisis due, in part, to bad loans purchased from the failed Penn Square Bank of Oklahoma—loans for oil and gas producers and service companies and investors in the Oklahoma and Texas oil and gas boom of the late 1970s and early 1980s.

MR. SMALL. What happens at a board of directors meeting with a Reserve Bank president?

MR. ANGELL. All directors and the president of the Reserve Bank are there. When I was a director at Kansas City, the Reserve Bank president was Roger Guffey [1976–91]. At the beginning, Roger Guffey would say what he thought ought to be done. He would set out a course for monetary policy and recommend what the Federal Reserve Bank board of directors should recommend to the Board of Governors. Most often, there wasn't any argument with that. Most often, there was a consensus agreement that that was the right way to go. But if directors had a different point of view, they were free to express that view, and that went into the minutes of action taken.

MR. SMALL. Basically, monetary policy issues were discussed.

MR. ANGELL. Basically, yes, monetary policy issues were dealt with in the open. On supervision and regulation, I don't think directors felt it was their job to set the tone on whether they were highly regulated or more loosely regulated. The Board had to approve the budget, of course. But that didn't differ much from any other company I've seen.

MR. SMALL. It is sometimes said the Board here in Washington, maybe the Chairman in particular, has power within the FOMC with the Reserve Bank presidents because the Board has this other connection to them through their budgets. Reserve Bank budgets have to be approved by the Board.

MR. ANGELL. When Paul asked me to be on the Board's Bank Activities Committee and then to chair the committee, I knew he didn't want any indication of lavish expenditures at Reserve Banks that would make the newspapers and be a detriment to the Federal Reserve in dealing with the Congress or dealing with anyone else.

MR. SMALL. You weren't warned not to ruffle a Reserve Bank president's feathers because that could come back to bite the Chairman?

MR. ANGELL. No, no, Paul never warned me about any of that. And probably in doing that, he wanted to separate that from what my duties were. Sometimes afterwards, I felt that Reserve Bank presidents may have resented the role I played on their budgets and the approval of their salaries. I was known to be closely following Volcker's wishes about nonlavish expenditures. So, in some ways, I was building up a bit of ill will in doing what I was willing to do. But that didn't bother me. I wanted what Paul wanted.

When Alan Greenspan became Chairman, I knew that if I wanted to move away from the stance I'd taken with Paul as Chairman, Alan would provide me the leeway to do that. That is, if I wanted to take the cap off of some of these salaries and let them move up at a faster rate, I knew that Alan would not look with displeasure on that. But I chose not to do that, because I had an identity with the way that I started with Paul Volcker, and I didn't want any discontinuities between where I was with Paul as Chairman and where I was with Alan Greenspan as Chairman because I wanted to be viewed more independently than that.

MR. SMALL. Do we need 12 Reserve Banks today?

MR. ANGELL. I suppose I'd said that it makes sense that we change the Federal Reserve Act because the San Francisco District needs to be divided up. We need to have two Banks rather than one Bank in San Francisco. But I don't know any of us that wanted to open up the Federal Reserve Act. There was never any incentive in the Federal Reserve System to open up the Act, because once you open up the Act, a whole lot of things can happen.

MR. SMALL. Let's just assume the act is going to be opened up due to the current financial crisis and everything is being reviewed. What if someone asked your advice on whether we need 12 Reserve Banks?

MR. ANGELL. I would lean on the side of having 12 or fewer. I certainly wouldn't want to increase the number of Reserve Banks. Frankly, I'd leave things as is. Once you open up the act, you open everything up. And they are better off not opening everything up.

MR. SMALL. Do you think the System is well served by there being so many Reserve Banks collecting information on the ground from the directors and channeling that information through the Reserve Bank presidents to the FOMC? Does it enhance monetary policy?

MR. ANGELL. I'm not sure how much it does. The presidents, who have one vote every three years or one vote every two years—or, in New York, one vote—those presidents are going to be able to take the information that's there. I never thought that it makes a whole lot of difference who the voting Reserve Bank is because while I was there—and, I presume, now—the FOMC always treated everyone equally in the discussions.

It was only seldom that we ever ran into issues over who was a voting member. We had one conference call episode in which that question was raised. I might have raised the question of who the voting members were and who were not. At the time, I thought that Alan Greenspan was taking too much liberty in his between-meeting directives. I don't remember the issues well enough, but I remember saying at the end of the meeting, "Mr. Chairman, you didn't announce the outcome of the vote." Well, Alan didn't announce the outcome of the vote, because he wasn't in accord with the outcome. I was always vote counting, and so I thought I always knew where the votes were whether or not the Chairman was counting. But I presumed he was, too,

because at FOMC meetings, I noticed that he was vote counting. There's nothing wrong with that, nothing wrong at all.

MR. SMALL. In an FOMC meeting, they have an economic go-round, in which all the Reserve Bank presidents give their views whether or not they were voting. Do you think those views are enhanced by their connections to local conditions through the various directors at the Reserve Bank? Do you think, as a group, all the presidents, whether or not they're voting, add to the meeting through that channel?

MR. ANGELL. I think so. Each Reserve Bank has its own business condition survey. I found that providing information worked satisfactorily.

MR. SMALL. By having all these directors—class A, B, and C—the Reserve Banks provide the Board with more grassroots political support for its mission, for its independence when there are congressional bills to cut back on the independence or [calls to] impeach Paul Volcker or whenever things get tense. Do you think that's a benefit of the Federal Reserve structure?

MR. ANGELL. It's a benefit that someone may seem to think works. Whether or not it works as strongly as it is set up to work, I don't know, but I've never known anyone make the argument that we ought to take that from where it is to zero.

MR. SMALL. How did the bank regulation side of the Reserve Bank operate, and how did the chain of command work in the directors? Did you see that differently from when you switched from being a director at a Reserve Bank to being a member of the Board of Governors?

MR. ANGELL. Not really. It worked about the same way whether I was a director at Kansas City making a recommendation or on the Board of Governors. The relationship between directors and supervision and regulation is not that different.

MR. SMALL. The Board has the legal authority to supervise, which it has delegated to the Reserve Banks. How strong or tight is that delegation?

MR. ANGELL. I don't understand why it's the way it is. I don't understand why the Board of Governors chooses to have a Reserve Bank like Kansas City—I mention Kansas City, because I have examples in that District of why regulation there would be less strenuous than regulation from the Board of Governors—that the Board of Governors is commanding, in a sense, tighter capital than the Reserve Bank of Kansas City had set.

When the supervision and regulation report for any bank goes through to the Board of Governors to oversee, the Board of Governors' staff on supervision and regulation can, in a sense, overwhelm the Reserve Bank. We don't very often have Reserve Banks say, "No, you can't." That is, we don't, in my memory, have instances where the Board of Governors took one position and the board of directors took another position, and they followed that through on making that a public issue. The Board clearly has the authority, which is delegated to the Reserve Bank. Everybody seems to understand that.

MR. SMALL. What benefits, if any, do you see in the monetary policy authority you have in this supervisory role?

MR. ANGELL. Well, not much, because under the current circumstances, more often than not, Reserve Banks are right, and the Board of Governors supervision and regulation may be wrong. Why that would be true, I don't know. But maybe Governor Daniel K. Tarullo [2009–17] has added impetus to the Board of Governors, which in a sense steps the Board of Governors to another position, and the Reserve Banks are still here.

MR. SMALL. You're saying that often the Reserve Banks are right in supervision and the Board is off—do you have any particular examples?

MR. ANGELL. Well, no. This is the only instance that I've seen that. I'm just very unhappy with the procyclical regulatory policy that I see. I look back and think about where we were in 1990, in 1991, when we were willing to do forbearance. When you're in a recession, forbearance is the appropriate way to go. The time to go in the other direction is in good times. That's when you ought to increase those capital requirements, because you want to slow them down anyway.

Now, if the Board wants to take a page from Greenspan's playbook and it wants to do it over a period of time, if the Board says, "As regulatory policy, we ought to require less capital; however, we don't think that ought to be the case. So even though we don't want to require more capital now, we may want to do that in the future. So we may want to increase those capital requirements at certain percentage points a year." That is, if people are worried about "too big to fail," then let's have a plan whereby the banks that posed the systemic risk to the system by being so big have higher capital requirements. If that capitalization is going to be 5 percentage points and you want to increase that 1 percentage point a year, I don't see anything wrong with that.

I'm not proposing a plan. I'm just saying that I think capital requirements should be increased when we see more lending going on than may be appropriate on not only price level stability, but also asset price stability. Because there really can be two things: Price level stability, but you may want to have asset class stability, and if you do, then maybe you want those requirements to be higher, particularly as banks get larger. You may want to have enough capital that you build a fund to use in case the too-big-to-fail occurs. So you have a reserve fund that's out there. Then when you have the event, you take that down. And when you take that down, you think about gradual increases [that build] that reserve back to where it was before.

MR. SMALL. What about the special nature of the Federal Reserve Bank of New York and its tie into the financial community. When a crisis hits, everything happens in New York?

MR. ANGELL. Well, it seems to me that the Federal Reserve Bank of New York is a handy place to do open market operations in adding or subtracting reserves and for currency moves that the Board may want to make.

MR. SMALL. But these crises always seem to involve the Reserve Bank president of New York.

MR. ANGELL. Well, because the directive is designed to provide the Federal Reserve Bank of New York operational—[Peter] Fisher [at the New York Fed] was doing that when I was here and before that, was it Axilrod?

MR. SMALL. Stephen H. Axilrod was here [at the Board].¹² But Peter D. Sternlight was the executive vice president of the New York Fed.

MR. ANGELL. Yes, Sternlight was in New York. It seems to me that the Federal Reserve Bank of New York is simply carrying out the FOMC's mandate, and that ought not to be thought of as exceptional power to the Federal Reserve Bank of New York. It is simply to say that if you're going to do open market operations, it doesn't make sense to have 12 open market operations.

¹² Stephen H. Axilrod worked at the Board from 1952 to 1986. He was Staff Director for Monetary and Financial Policy and Secretary of the Federal Open Market Committee.

December 18, 2009 (Second Day of Interview)**Monetary Policy**

MR. SMALL. We've talked a lot about your career path leading up to your joining the Board of Governors, and we have discussed the February 1986 discount rate vote. Let's talk more about monetary policy.

MR. ANGELL. The motion I made to lower the discount rate was in February 1986. Then when I moved to reconsider, we delayed the action changing the discount rate until March. Afterwards, I felt satisfied that the markets had reiterated the correctness of this move. First, commodity prices were still on a decline, which said to me that monetary policy was more restrictive than other measures of money would have suggested.

Second, I always watch carefully the bond market's reaction to a fed funds rate move, a fed funds rate proposal, or comments on the dollar. When we lowered the target fed funds rate—it went into effect in March—from 7.5 to 7 percent, bond prices rose. Long bond rates fell in line with the cut in the discount rate and the fed funds rate. Since the fed funds rate was set by the FOMC, the FOMC in effect set the spread between the funds rate and the discount rate. So the FOMC's instructions and the intermeeting directive were all about altering the spread between the discount rate and the fed funds rate.

That took place in March. Then, in April, we had another discount rate cut. But the second discount rate cut was not one that Manley Johnson and I proposed as much as it was that Chairman Volcker thought, in hindsight, that the discount rate move made in March, with the Bank of Japan and the Bundesbank making similar moves—Paul seemed to be fairly satisfied with that, and so he proposed that we lower the target fed funds rate, lower the discount rate from 7 to 6.5 percent.

MR. SMALL. That was April 18 to 23. The March reduction was done in unison with the Bank of Japan and Bundesbank, but the April reduction wasn't.

MR. ANGELL. Right. That was unilateral. The dollar was holding up fairly well with the coordinated rate reductions, and the market said, "Wow, we've entered a new era whereby central banks are going to talk to each other." A G-3 (the United States, Japan, and Germany) was out there acting. That was reassuring to the international money markets.

When we lowered the discount rate on April 18 another 50 basis points, long bond rates came down, but not as much as they'd come down on the March move. Then we got to, I presume, July, and Chairman Volcker proposed we do another 50 basis point cut in the discount rate. I was satisfied with that, and we did it. But, lo and behold, the 30-year bond price didn't change at all, and I said, "Uh-oh."

Then we got into a circumstance that was somewhat unusual. Vacations entered the picture. Chairman Volcker talked about a fourth move, taking the rate from 6 to 5.5 percent, but he didn't want that to take place while some of us were not there. He wanted a consensus view to be in the market that we'd cut rates.

I had some misgivings about cutting rates because I wasn't getting the same strength of commodity price indication at that time, and the 30-year bond had not responded favorably to the last rate cut, so I had some hesitation. But my thinking was that I had participated in cutting rates from the beginning, and I wasn't ready to vote down the latest rate cut. I think only four members of the Board of Governors were there to vote.

MR. SMALL. Did the others dissent?

MR. ANGELL. They just weren't available. I don't know who. There were some vacancies on the Board. That probably had a bearing on the vote. We were still at a time where

the Board set the discount rate based upon recommendations from Reserve Banks. As soon as we made that discount rate reduction in August, I had a case of buyer's remorse. The price of gold, silver, and platinum was spiking upwards, and long bond prices fell after that discount rate move. So I was looking at market signals and had some significant buyer's remorse about the discount rate reduction.

I began to switch to becoming the monetary hawk, because monetary commodity prices were telling me all the way there, clear through the first of 1987, that monetary policy was too easy. So I had a shift in position after observing what I thought were forward-looking indicators and [the] bond market response to what we had done.

MR. SMALL. What was the counterargument?

MR. ANGELL. The economy was still weak. In 1986, we could have had a recession but didn't.

MR. SMALL. From 1985 to 1986, the unemployment rate stays flat but high.

MR. ANGELL. The supply-side argument was that the Fed shouldn't restrain economic growth, that economic growth is a plus to combat inflation. That is, the more goods you have available, the less likely you are to have those goods run up in price. In fact, that's the way the market works, but you have an increase in the price of commodities; that means the profit margins are higher. That's a spur to increased economic output.

MR. SMALL. Do you have anything to say more broadly about these economic developments and those policy decisions in the context of the macroeconomy and the Reagan tax cuts?

MR. ANGELL. Well, the tax cuts are more complicated. In 1983, we had a double dose of tax cuts. We had what I called the "Reagan supply-side tax cuts"—place those on top of the

House Ways and Means Committee tax cuts, which went in somewhat the opposite direction by narrowing the tax base.

MR. SMALL. They went in the opposite directions in supply-side incentives, but they went the same way as far as deficit spending. They increased spending and added to the deficit.

MR. ANGELL. Right. In 1986, there was a recorrecting of the 1983 tax cuts because the 1986 tax adjustments took out those Ways and Means Committee actions. By and large, the supply-side argument in favor of tax rate reduction was: Where rates are the highest, that's where they're the most critical in holding motivation to produce more.

The tax cuts that I wanted were the reduction of top marginal rates. Top marginal rates were under 48 percent, but I don't know how you add it all together. After the 1986 and 1987 actions, the top marginal tax rate in the law was 35 percent, plus losing some exemptions as you went forward. With those rates where they were, someone might have argued that all we need is more monetary stimulus. But I wasn't sold on that argument, because commodity prices were not suggesting that to me. So I relied on my standby—commodity prices. During this time, the Board had developed a commodity price index. That was all complete by the end of 1986, so I felt we had input there that was very valuable.

From the time I joined the Board until after the August vote on the discount rate, I wanted to have less monetary restriction on the economy. But after the August discount rate cut, I became known as the "inflation hawk," because I began to wonder whether we ought to have an increase in interest rates. I don't know how that showed up in a vote—either at the FOMC or the Board of Governors—in the fall of 1986. But, as I recall, in February 1987, I took the position that monetary policy should be tighter than it was. Maybe I dissented.

MR. SMALL. In August 1986, the discount rate was cut to 5.5 percent, and it was kept there until September 1987.

MR. ANGELL. Yes, and September 1987 gets you into that stock market crash.

MR. SMALL. The funds rate drifted up over that period from $5\frac{7}{8}$ in August [1986] to $7\frac{1}{4}$ percent in September [1987].

MR. ANGELL. In the spring [of] 1987, Paul Volcker joined me in preferring to have a higher interest rate. I think there were some between-meeting moves that were made at that time. Then after Alan Greenspan became the Fed Chairman, the stock market event in October 1987 dominated. I'm trying to think what brought that about. As I recall, there were questions and comments about the dollar as well as short-term [interest rates] in the United States.

MR. SMALL. The unemployment rate was coming down over this period, but it was still pretty high. The Greenbook was showing that output was below potential in the summer [of] 1987. So both by the unemployment rate and this output gap, you could say, "We've fought this war of inflation, and we've brought inflation down." Was there a sense of maintaining credibility, not destroying the credibility that the Federal Reserve had earned, and still be fairly tight? Were inflation expectations and the Fed's credibility driving forces—that you might lose the war at the last minute if you were too easy?

MR. ANGELL. Even though commodity prices during much of this period were below where they had been previously, commodity prices were in an increasing phase. This increase in commodity prices concerned me. I felt committed to a pledge of commodity price stability. The level of commodity prices on the Federal Reserve's index moved up to 120 and didn't seem to necessarily want to stop there, which I thought was not consistent with a pledge of price stability. So my reasoning then would be very similar to my reasoning now if I were advising the FOMC.

Commodity prices were indicating that we were not going to have price stability. They're a forward-looking indicator that prices are going to be higher.

MR. SMALL. What was driving Volcker and the other Board members? Presumably, they weren't looking at commodity prices quite as strongly as you were.

MR. ANGELL. I'm trying to think how the votes went. In April and May, Paul knew that Manley Johnson and I thought that interest rates ought to be higher, not lower. I had leaned in that direction ever since October, November 1986. In May, Paul said to us, "If you want to increase rates, I'll support that." But as I looked at commodity price signals, there never seemed to be a time where it seemed necessary to do that. The indicators didn't prompt further action. We didn't end up increasing rates in May, as I recall.

MR. SMALL. So the funds rate drifted up. It was 6 percent in December 1986. By late April to mid-May 1987, the funds rate had wandered up to 6.75 percent.

MR. ANGELL. When Chairman Volcker said, "If you want to increase rates, I'll support that," I thought that was in the context of Chairman Volcker wanting to be reappointed to a third term.

MR. SMALL. But if a Chairman wants to get reappointed and it's near the time for that decision, he would not be raising interest rates. Usually, the way to curry favor with an Administration is to lower interest rates.

MR. ANGELL. Right. And I was supportive of the Chairman being reappointed. In other words, if the Secretary of the Treasury or the President had asked me, I would have favored the reappointment of Volcker to a third term. But that wasn't close to being a possibility, because I think Jim Baker felt that the 1988 presidential election was going to be important to him because his guy, George H.W. Bush, was then Vice President. I thought that Jim Baker

didn't trust Paul Volcker not to be a factor in the elections. The Fed had become a factor in the elections in 1960. By having back-to-back recessions in 1958 and 1960, there was a question whether the Federal Reserve may have played a role in Nixon, who was Eisenhower's Vice President, not getting elected. So I was convinced that Paul Volcker being reappointed would be a political hang-up.

What I've learned since that time is that Paul Volcker—when he said to Manley Johnson and me that he supported raising rates—had given up in his quest for a third term. Volcker stood high enough in the Administration's regard that when he wasn't reappointed, it seems likely that he was asked who should be Chairman. So I think Volcker pulled himself out of the running for reappointment. And when he was asked about a successor, he recommended Alan Greenspan. So when they got to August, the selection was completed.

As we got to the end of his term, Paul Volcker and I had a conversation. Most likely at the White House, in the Red Room, we talked about what had transpired and whether we left interest rates where they should have been as his term came to an end. I thought that Paul Volcker agreed with me that we had not made the moves that, somewhere, we should have made, and interest rates should have been higher at the end of Volcker's term than they were. So when Alan came in, we were talking about discretionary monetary policy. I warned Alan Greenspan about the risk of discretionary monetary policy because I was a Friedmanite. That is, Milton Friedman, to me, had set the right standards and the right concepts in regard to price stability.

Fed Chairman Alan Greenspan

MR. SMALL. When Alan Greenspan became Chairman, he certainly had a lot of experience in government. For example, he had been chairman of the Council of Economic Advisers. And his private-sector experience was reading the economy and constructing data and

new data series to get new readings. What did you think his starting point was, as far as knowing how to conduct monetary policy and think through monetary policy?

MR. ANGELL. For the most part, I thought he was a constructive appointment. If Volcker wasn't going to be reappointed, Alan Greenspan was the next best thing. Alan immediately began to ask me what I thought about the level of the fed funds rate. I thought it was too low. So, the 1st of September, we made the discount rate and the fed funds rate move.

MR. SMALL. The discount rate moved up to 6.5 on August 9 [1987] when Volcker was still Chairman. The funds rate was 8 to 8.25 percent.¹³

MR. ANGELL. And I was fully supportive of that.

MR. SMALL. Then the discount rate didn't change in 1987 after August, but the funds rate went from that low 8s to high 8s to almost 9 percent.

MR. ANGELL. Part of that was what I labeled "Greenspan's mistake." Alan asked me how much I thought the funds rate ought to be increased. I favored a 50 basis point increase in the funds rate. When Alan Greenspan was sworn in as Chairman on August 11, the Volcker Fed had raised the discount rate two days before. That was keeping within what the discussion between Volcker and Greenspan must have been. I was certainly supportive of that, because I thought the rate was too low. Where I disagreed with Alan Greenspan was when we got to the FOMC meeting. Alan suggested—and we'd talked about it ahead of time—that we ought to take the funds spread to the discount rate somewhat higher.

MR. SMALL. The discount rate moved up 50 basis points on August 9, and was unchanged through the rest of 1987. It went up another half in February 1988.

MR. ANGELL. What happened in September 1987?

¹³ Editor's note: The discount rate was raised from 5½ to 6 percent on September 4, 1987, shortly after Mr. Volcker left the Board. Mr. Angell supported that increase.

MR. SMALL. Nothing happened to the discount rate for the first four months of Greenspan's chairmanship.

MR. ANGELL. Well, that wasn't my recollection.¹⁴ My recollection was that we had moved the discount rate up 50 basis points, because Greenspan said that he wanted to make the market realize that we were serious by taking the funds rate up 75 basis points even though the discount rate was increased 50 basis points. And I said to him, "I don't recommend you do that, because if you take the discount rate up 50 basis points, the market will assume that the fed funds rate will move up by 50 basis points." The market believed that we'd made a second tightening in September, but it was one tightening event. The market thought that it was two events, so the market thought we were increasing rates.

MR. SMALL. The public website of the New York Fed indicates that on August 9, 1987, there was an increase the discount rate [of] 50 basis points, to 6.5, and no more changes in the discount rate until February 24, 1988.

MR. ANGELL. Well, it's vivid in my memory that when Alan came in, we moved the funds rate more than we moved the discount rate.

MR. SMALL. The funds rate went up. So what this is saying is, the discount rate is flat, but you're pretty aggressively moving the funds rate up, from about 8 to 9 percent by early December. So the funds rate is going up about a full percentage point over the fall.

MR. ANGELL. I thought that when Alan was first in, we talked about how much to move rates. There was an FOMC conference call. The point is that interest rates were too low, and we were moving interest rates to where they should have been. And then, moving those interest rates up, we ended up with a stock market crash.

¹⁴ Editor's note: Mr. Angell is correct. As noted in this transcript, the discount rate was increased 50 basis points, to 6.0 percent, on September 4, 1987.

1987 Stock Market Crash

MR. ANGELL. With that stock market crash, we then went into emergency mode. Alan Greenspan was on an airplane flying to Wichita for, I believe, an American Bankers Association meeting.¹⁵ Manley was Vice Chairman.

We had meetings in Manley's office with Don Kohn. A lot of things went through our minds. One of them was that someone at the New York Stock Exchange or the stock market or the New York Fed might decide that the markets ought to be shut down. As I recall the 1987 event, the futures market and the stock market were not exactly in sync. There was a huge disparity between the futures market and the stock market. Some were holding that the futures market was wrong. I was holding that the antiquated New York Stock Exchange system was wrong.

MR. SMALL. The stock market and the futures market were disjointed. Had the stock market fallen a lot?

MR. ANGELL. Well, the futures market had fallen more.

MR. SMALL. Were you thinking the market had further to go down because the futures market indicated that it had further to go?

MR. ANGELL. I thought the futures market was telling us the right thing. The previous Friday, we had a 100-point decline in the Dow Jones Industrial Average. On Saturday, in Japan the Nikkei fell through the bottom. So when the New York Stock Exchange opened on Monday, those specialists had had, in a sense, too much stock put to them. To maintain an orderly market, the specialists were buyers. But the specialists couldn't open their stocks where they would trade. They couldn't open at the right level, because if they did, they were broke. The specialists

¹⁵ Editor's note: Chairman Greenspan flew to Dallas, Texas.

were broke, so the only true representation of where we were in the market was the futures market, because Chicago was right, in a sense, and the New York Stock Exchange was wrong.

That aberration contributed to that difficulty and that amount of uncertainty. Someone wrote about what happened, and they suggested that the futures market went haywire. To complicate matters, for almost 90 minutes, the wire line between the New York Fed and the Chicago Fed went down during that time, so we weren't covering those holes in regard to the— the Board then switched quickly to a crisis mode and a bailout mode. We lowered the fed funds rate. You might recall the FOMC statement: "We'll supply whatever liquidity is needed. We're supplying this liquidity, and we'll supply whatever is needed." By January 1988, Alan Greenspan was still of the view that the 1987 stock market crash sounded a lot like what happened before the Great Depression, and he didn't want anything that happened to exacerbate that problem. But as I looked at commodity prices, I didn't see any reason for the Chairman, between meetings in January 1988, to lower the target fed funds rate again. I thought that move was incorrect. So then I adopted a posture of wanting interest rates to be consistent with price stability. And I didn't think they were.

MR. SMALL. I'd be terrified to turn around and raise interest rates so quickly after going through the 1987 stock market crash.

MR. ANGELL. But we lowered them 50 basis points and said, "We'll supply all of the liquidity that is needed." I agreed with that statement, but I thought that was an emergency injection of liquidity, and then I thought our job was to take that emergency liquidity out.

MR. SMALL. There's sometimes this saying that the way we get into problems with monetary policy is that no one wants the crisis to be on their watch. So, putting myself in that situation, it would be, "We'll lower funds. We'll provide all this liquidity," and then, a month

later, there is the risk of taking some of it out and having the collapse continue. The incentive “not on my watch” would lead you to be too easy too long.

MR. ANGELL. Right. In January 1988, I went to Greenspan’s office. I asked his assistant, Catherine Mallardi, if the Chairman was available. She said, “He’s in his office, but Vice Chairman Johnson is with him.” I said, “Well, I want to go in.”

When I walked through the door, the Vice Chairman and Chairman were in conversation. I was suspicious that Chairman Greenspan might want to lower the target fed funds rate, so I said, “Have you made up your mind what you’re going to do?” He said, “Yes.” I said, “Well, then, there isn’t any reason for me to say anything.” Even though I said there wasn’t any reason for me to say anything, Greenspan came back and said what he would have said if I would have said what he would have expected me to say. He said that the problem wasn’t monetary policy so much in 1929, but monetary policy in 1930. He thought that monetary policy set off to exacerbate the situation. And he thought there was some risk of having a repercussion in output and employment if we didn’t lower the fed funds rate farther. But as I looked at commodity prices, I thought, “There’s no evidence of that.”

Commodity prices are an indicator of monetary liquidity. If you have too much monetary liquidity, it tends to drive commodity prices higher. I didn’t see any stringency in monetary liquidity. I thought there was plenty that was there, and I did not think we were in the throes of a kind of Great Depression, so I felt comfortable leaving the target fed funds rate unchanged.

After that reduction of the fed funds rate—in between meetings, in January 1988—that was the last reduction made for some time. Then, all the way to 1989, all the boosts were to higher interest rates. I thought that we had been too easy, which generated this need to drive the

target fed funds rate to 9.5 percent or wherever we were to go. That was necessitated because we were trying to target something besides looking at commodity prices as the leading indicator.

Once again, I had verified in my own mind that commodity prices are a good leading indicator for the Federal Reserve to be concerned about, and that what happened in the stock market was in some ways an aberration in 1987. The stock market regained that loss fairly soon, in 1988. There was a sharp move down in the stock market and a move back up, so that in 1988 you didn't want to be out of stocks—it was good to be in stocks. When we got into this period of increasing rates, I thought, once again, that the rate increases went too long to suit me, because I didn't think that it was desirable to have a recession.

Well, I should stop. I'm not quite so sure of that. The 1989 event turned out to be a 1990 recession, didn't it, not a 1989?

MR. SMALL. Inflation as measured by the CPI is trending up.

MR. ANGELL. It was very unsatisfactory to see an inflation rate around 2.5 percent. And then, as always, as you go into recession, you get the highest rise in the CPI.

MR. SMALL. During Volcker's chairmanship, the economy paid this huge price to get inflation down, and it stayed pretty low. Some might have questioned whether the Fed was going to squander that.

MR. ANGELL. Right. Again, I give a great deal of credit to Paul Volcker. He was willing to raise rates in 1984, when there was still a lot of slack in the economy. Paul wasn't looking as much as the current Fed is at the unemployment rate and the slack in the economy. He was much more in keeping with my view.

MR. SMALL. Yes, the funds rate was going up in 1983 and 1984. The discount rate move was in April 1984. The funds rate was at 8.5 at the end of 1982 and was up to almost

12 percent by mid-1984. Today there is a lot of talk by Governors and Reserve Bank presidents in speeches, for example, about inflation expectations and whether or not they're well anchored.

MR. ANGELL. Well, yes, but I'm not much into that inflation expectations game. Let commodity prices tell us what the forward-looking indications are. Commodity prices tell me right now that the Fed is way too easy. There isn't any reason for the Fed to deviate from what should be its principal stand—price stability. In the 1980s and 1990s, I thought we demonstrated that—by taking the inflation rate down, we promoted economic growth. The decade of the 1980s was a good decade for growth, and we had a long expansion, which I thought was important.

MR. SMALL. Today one could argue that monetary policy is being held captive. It's being limited by the excesses in the financial market and the current financial fragility that we have in the housing market. Regulatory policy wasn't right, and now monetary policy is constrained. How do you raise interest rates when small businesses are fragile and constrained?

MR. ANGELL. I don't think raising the target funds rate from 0.12 percent to 1 percent would be a noteworthy drag on the growth rate of output. I think the growth rate of output would be virtually unaffected by this move. By having this extraordinarily low target fed funds rate, there's no gain.

The Fed has said that, no matter what happens in the future, it's going to leave interest rates low. How can you run monetary policy and say that for the foreseeable future? Shouldn't the Fed be looking at the data as it goes along and decide what to do at the next FOMC meeting? Why create expectations that you're not going to change the fed funds rate? We don't know for sure how things will develop. Why create expectations of this low fed funds rate? It doesn't

make any sense to me, because the FOMC, in its between-meeting actions, ought to always be looking at the data. Foremost among this data would be commodity prices as leading indicators.

MR. SMALL. The long rates did not move up that much during this period of significant tightening in the funds rate.

MR. ANGELL. I was out there suggesting every chance I had that price stability was our primary goal, and that by doing price stability—moving the fed funds rate up was because of price stability. If you're going to get price stability, why would long rates be affected?

Glass-Steagall Changes

MR. SMALL. During the late 1980s and 1990s, there is the thrift crisis, what is now referred to as “the days of the financial headwinds.” Thrifts were given new powers. Glass-Steagall was loosened up.

MR. ANGELL. In Chairman Volcker's last year and a half, he was always cautioning the Board to go slow in dismantling Glass-Steagall. In a sense, the Federal Reserve Board had the keys to the kingdom, because the Federal Reserve Board could approve of bank holding company applications. That is, the Board of Governors could set the rules on the separation of commercial banking and investment banking.

MR. SMALL. The Federal Reserve couldn't ignore Glass-Steagall, but there were some issues about the one-bank holding company and the term “principally involved,” so there's a lot of wiggle room.

MR. ANGELL. There was clearly some wiggle room, and the Board's general counsel, Mike Bradfield, was always fairly prompt in advising the Board on the law. But there was still the question about being a bank holding company. There was always some bank holding company applying to be able to do—Glass-Steagall didn't prevent bank holding companies from

engaging in investment banking; it prevented commercial banks from engaging in investment banking.

MR. SMALL. Glass-Steagall doesn't prohibit a bank holding company that owns a commercial bank from setting up an investment bank under the holding company? What would be the basis for the Fed to say, "We don't care if it's legal under Glass-Steagall. We're not going to allow you to do it." What was the Fed's legal authority to impose something that Glass-Steagall did not?

MR. ANGELL. The law prohibited commercial banks; it didn't prohibit bank holding companies. I couldn't see how bringing the bank holding company statutes—or rules and regulations—in line with commercial banks could be thought of as any change in risk. That is, I didn't see how it was that detrimental to prohibit bank holding companies from owning investment banks.

It was not just a question of owning investment banks. There was also the question about owning commercial activity. We didn't want Sears Roebuck to be owned by a holding company. If we would have had that, then we wouldn't have commercial banking set aside, we'd have some different kind of conglomerate. Well, no one was leading out with those kinds of proposals, but, on the edges, there were always these proposals to enable bank holding companies to engage in investment banking.

MR. SMALL. And Volcker was advocating to take it slow.

MR. ANGELL. Volcker was advocating, "Don't do it, or take it slow." And I voted, for the most part, with Paul Volcker on those issues. Manley Johnson was more of the "Let's not fetter the system with excessive regulation." So if a bank holding company wants to own an investment bank, I don't think he saw anything inherently wrong with that.

MR. SMALL. And your counterargument to him was what?

MR. ANGELL. My counterargument was that investment banking involves another set of risks that are not the same risks as commercial banking, and I didn't see any reason to go speedily in that direction.

Now, in the 1990–91 recession, the capital of some thrift institutions was zero or less. When the thrifts failed, it was quite an example to see by how much they failed. We had these 30 and 40 percent shortages of capital. The lack of capital was paramount there. I was of the view that a low regulatory environment with a high cap requirement was the way to go. I didn't want to overregulate; I wanted to have capital requirements be high.

Payment Systems

MR. ANGELL. During this period, I was on the Payment System Risk Committee. I presume that was a Greenspan committee, not a Volcker committee, but I don't know for sure. Manley Johnson was chairman of that committee until he left, and then I became chairman. In March 1986, Paul Volcker had asked me to attend the G-10 board of governors meeting. When I got to that G-10 meeting, I ended up being on the Payment System Risk Committee and became chairman of that committee prior to my becoming chairman of the Federal Reserve's Payment System Risk Committee.

We did several studies on payment system risk. I was unable to get through what I wanted to get through on payment system risk. My major recommendation was that we use minute-by-minute reserve requirements. I felt that using daily reserve requirements meant that, all around the world, people were betting on the window that closed New York time in the late afternoon/evening of reserve requirements, so any shortage of dollar payments would show up at that closing time. I think we had the case at the Bank of New York and other cases where,

in a sense, we couldn't close the discount window as promptly as we needed to. But the overnight borrowing turned into being cleared out through the window of the New York Fed at night. And I wanted minute-by-minute reserve requirements.

MR. SMALL. Is this the daylight overdraft issue?

MR. ANGELL. Yes. This is the daylight overdraft issue. It was important that we not build up daylight overdrafts that would all of a sudden hit the system at night. That would be a payment system risk that we were trying to avoid.

MR. SMALL. Ed Ettin worked on that?

MR. ANGELL. He did. Don Kohn never wanted to go to that minute-by-minute reserve requirements. He saw that as a potential interference with monetary policy. I couldn't persuade him that it wouldn't interfere with monetary policy at all; it would, in fact, give monetary policy an additional amount of information. It would give the information not only of what the overnight fed funds rate was, but also what the minute-by-minute fed funds rate would be. I thought that would have been an enhancement of monetary policy. But that was one cause that I never saw to fruition.

MR. SMALL. Did you get into other aspects of the payment system? Now when we have a crisis, we worry about CHIPS (Clearing House Interbank Payment System), and we worry about one bank not being able to pay another. We worry about interconnectedness on the side of the funds market.

MR. ANGELL. Because, at the end of the day, those all clear back through the New York Fed. All of these other systems around the world ultimately clear, because you don't really have payment until it's done at the Federal Reserve Bank.

Thriffs

MR. ANGELL. Let's get back to the thriffs. The 1990–91 thrift crisis was exacerbated by certain political interconnections. Some U.S. senators got their hands in that mess and, politically, had trouble extracting them. But the question was: Should we let thriffs be involved in this business of taking the short-term/long-run interest rate risk business? Today there are institutions and companies that engage in this risk of buying and holding long-term assets.

MR. SMALL. Doing the risk arbitrage.

MR. ANGELL. Yes—of owning long-term assets and borrowing in the short term to cover it. Because you can, at this point in time, take agency long-term assets—5-year, 10-year, and even longer if you wanted—and you can fund those by borrowing against them in the repo market.

MR. SMALL. They currently take that interest rate risk, slice it up, and sell off pieces to get it diversified out into the markets.

MR. ANGELL. The argument was made by some that taking in short-term deposits and holding long mortgage assets was too risky for financial institutions. “We should foster the packaging of these mortgage-backed securities, sell them out in the marketplace, and not have that risk concentrated in one or many institutions”—that was the solution to the problem.

Unfortunately, that solution did not take into consideration how a run on the bank would evolve. When firms had collateralized debt obligations that they found they could trade, there were banks willing to buy them and sell them, and that was working. Then, all of a sudden, it wasn't working. So, what happened? In effect, we had a “run on the bank” of the owners of these collateralized debt obligations wanting to all sell them at once. And when monetary policy from 2003, 2004, 2005 created excess liquidity, as indicated by commodity prices and also by

house prices, and when that house price rise was exacerbated by the Community Reinvestment Act, which required bank examiners to be examining banks and asking them, “Why aren’t you making this loan?” rather than “Why did you make these loans?”—the Community Reinvestment Act put the onus on banks to make mortgage loans.

The notion was that some Americans were getting wealthy and some Americans weren’t getting wealthy. The primary distinction between those getting wealthy and those who weren’t getting wealthy was homeownership. So if we could somehow or other broaden the ownership of houses, that would be very effective. Unfortunately, the Community Reinvestment Act was being done at a time when monetary policy stance was easy—the fed funds rate was at 1 percent.

The Greenspan Fed made an even worse mistake than putting the fed funds rate at 1 percent—it decided to take away that ease gradually. In February 2004, a meeting took place in Senator Robert Bennett’s office. Senator Bennett invited Alan Greenspan, Robert “Bob” Rubin, and others, and I felt fortunate enough to be invited to that meeting. At that time, Alan Greenspan made the case that monetary policy was going to have to be increased. I agreed with that. In fact, Alan Greenspan came as close to complimenting me as he ever did outside the Fed when he said that just as I was alert in regard to the need to increase interest rates in 1993. I didn’t go to the February 1994 meeting because I was leaving the Board. In the December meeting, my last meeting, I warned that interest rates were going to have to be increased significantly. By the way, that gave me quite an impetus to be chief economist at Bear Stearns, because I was a hot commodity based upon my view that interest rates were going to have to be increased.

MR. SMALL. The preemptive tightening in 1994 was a famous episode in the history of monetary policy, right? The inflation hadn't taken off. It was almost based on forward-looking behavior, and that was quite unique.

MR. ANGELL. Right. And that came from commodity price watching as a driving factor in that it got me to that position ahead of the time that many people were at that position. So the question then was, do you want to disperse these collateralized debt obligations and get the long-term mortgage-backed lending? Do you want to get it outside the banking system rather than shoring up the banking system to do it?

As an aside, I would say that I don't think it would be all that bad. If you really had a risk-based capital system and if you were taking that risk in the institution, then probably you wouldn't think that a 5 percent capital requirement was appropriate. Maybe a 15 percent capital requirement would be appropriate under that kind of risk scenario. But by selling the collateralized debt obligations and selling them worldwide— The market for them was very large, because there were many institutions—pensions, retirement plans, and so forth—that had obligations in which owning long-term assets would be a benefit. So there was a huge market out there for those long-term interest rates, because if you're going to have a retirement plan and you have higher long-term interest rates, it certainly means that things will work for that retirement plan.

MR. SMALL. Would you talk about the new type of bank run? If a bank had completely sold off its longer-term assets, then it wouldn't have this problem of mismatch. And people were thinking the bank was essentially in that position because of these obligations. If they suffered from the long-term asset going down in price, they would get a payment back from the market, so they were hedged. The idea is, "Now they've hedged; now they've taken the interest rate off

their balance sheet. They've got a maturity match because of these hedges, so they're safe."

What went wrong? How could runs still happen?

MR. ANGELL. What went wrong is that the pension plans and other groups that ended up owning the collateralized debt obligations were always dealing with the question of marking to the market. So the value of these obligations fluctuated, and when the value went down, then—

Let's go back to the traditional thrift. I want to go back to when Regulation Q was still in effect. The business cycle was driven by a process of having mortgage-backed securities or mortgage-backed loans in a thrift institution, and if you had Regulation Q in effect, you had a ceiling in regard to the short-term interest rate that they could pay. When the Fed would run the fed funds rate up above the Reg. Q ceiling, then that disintermediated thrifts, and thrifts could say to their customers, "I can't make any loans. I don't have any money." And they were right. They didn't have any money. So monetary policy worked in a Regulation Q era. Any time the interest rates would get above the Reg. Q ceiling, it would disintermediate the thrifts, and there was no way then to make mortgage loans. So you shut down the mortgage loan business as you did that.

MR. SMALL. And then the Fed got rid of Reg. Q. And banks sell off the asset risk, so everything's fine, and there can never be another run on a thrift, maybe?

MR. ANGELL. But deposit insurance worked. When you took rates above the Reg. Q ceiling and you disintermediated the thrift and the thrift couldn't make any loans—the thrift couldn't buy any assets—that was one kind of event. But then, after we found a way to package these up and get them outside the bank, then these collateralized debt obligations began to be the focus of the activity. So if you wanted funds, you'd sell collateralized debt obligations. If you

had plenty of funds, you could buy them, and there were profits to be made and losses to be made in that market.

But when the Greenspan Fed created that liquidity bubble and the Community Reinvestment Act added to that, and we added up to more people wanting to buy houses than there were houses—and we drove house prices higher. But when house prices started coming down, then collateralized debt obligations do not have the same risk that they had before. If house prices were always to rise, then there would not be this kind of a problem. But if you ever got in a period—as we did from 2006 to 2009 and maybe 2010—of declining house prices, then you’ve got a risk there that has to be dealt with one way or the other.

MS. HURT. What problem did the Community Reinvestment Act cause? Is the act a problem, or is how the regulators interpreted the act a problem? The language of the act is pretty simple, in that regulators should encourage financial institutions to extend credit in their community.

MR. ANGELL. And to avoid discrimination, right? So it becomes illegal to discriminate and to say, “Because of your sex or your race or your age, we’re not going to make this loan.”¹⁶ And the Community Reinvestment Act, as I saw it, took place at a time when there was discrimination in that market because there were some people that were treated less favorably. And I think all the Board’s Community Reinvestment Act investigations showed that, didn’t they? They showed that some groups were not getting loans as much as others were getting loans, and that some lending officers were more severe than others. There’s nothing wrong with the principle of fairness. That’s what we should have. But when you have people that have been

¹⁶ The Equal Credit Opportunity Act prohibits credit discrimination on the basis of race, national origin, and other prohibited bases of discrimination. The Community Reinvestment Act requires regulators to encourage lenders to meet the credit needs of the communities they serve.

discriminated against or are unable to develop the knowledge to participate in the market, and all of a sudden you try to add those people to the homebuying group, you end up doing them no favor at all.

MR. SMALL. It's potentially more dangerous economically to do that when you have low interest rates and a flood of liquidity in the system, because then you get speculation and capital gains and more speculation. It's probably better to do that when financial conditions are a little more firm, so the process is a little more orderly?

MR. ANGELL. Right. But I hold that it was monetary policy mistakes that was the ringleader of this, because we wouldn't have been as tempted to help people out if we had not had short-term interest rates that were low enough to add to this carry trade, whereby you buy long-term assets and repo them in the market at short-term rates.

Data Availability and Capital Standards

MR. SMALL. The Fed is seen as having access to tremendously extensive and detailed data sets on the real economy, investment, where it's happening, and consumption of various types. Do you think the Fed has enough detailed information on the financial side—who's getting mortgages, what are the standards, what are the conditions, where's the risk and the collateralized debt?

MR. ANGELL. Financial institutions should not be prohibited from owning long-term mortgages. But if they own long-term mortgages, they do take on a risk, and the capital requirement should be high enough to cover that risk. And if the institution becomes too big to fail, then the risk of the public becomes even greater, and so the capital requirement ought to be higher. The capital requirement ought to be high enough to deal with this too-big-to-fail question in financial institutions. So if Bank of America or Citicorp or any other business is that

large that they're too big to fail, then the capital requirement ought to meet that too-big-to-fail risk.

MR. SMALL. What pressures do you see—either through regulatory arbitrage, financial institutions going offshore, or just pressure on a regulator like the Board—that it's hard to get higher capital standards to stick and be achieved because banks will switch their charter to the preferred regulator? Is there a lot of pressure on the Board from the banking industry, from the lobbying side? Have you experienced that, that to keep capital standards low—or banks invent new products where they can escape capital standards? Is that an ongoing battle?

MR. ANGELL. I don't think that's an insurmountable, ongoing battle. When I was attending the G-10, we were on Basel I and beginning to see discussions of Basel II under the Corrigan committee. The Federal Reserve had two representatives at Basel: the Board's representative, who was the Chairman or the Chairman's designee; and the New York Fed president, who in a sense held the stock or was supposed to be the holder of the stock. Gerald Corrigan was involved in the Basel I or II negotiations, I believe.

We've had a lot of information to digest since I was here. And looking at the thrift crisis and the decline in thrift prices, I ended up forecasting that the house price deflation was going to occur. I thought, looking at commodity prices here, that when this year-over-year rate of change of commodity prices reached a very significant low—the commodity prices are a good leading indicator of where deflation and inflation may be going. It takes place sooner in commodity prices than it does in house prices. Well, I don't know.

MR. SMALL. How the Fed gets a handle on credit flows and adequate capital is difficult. Sometimes there are implicit subsidies, like FDIC insurance. But there are these recurring crises, and when you look at a particular bank that went under, all of a sudden there are

surprises about what terrible shape it is in. Or when the susceptibility of the whole system to AIG (American International Group) is revealed, which was well known but over in a dark corner, somehow the Federal Reserve System doesn't have enough data or enough expertise or it's too compartmentalized. Did you think you had the information you needed ahead of time to make these decisions?

MR. ANGELL. During my confirmation hearing, the statement that I gave to the Senate Banking Committee on monetary policy reflected that, and while I was at the Board and since I left the Board has been consistent. That is, if the Federal Reserve will maintain priority of price stability, then all of these things will work out fairly well. I can put it this way: Adam Smith's 1776 statement on the invisible hand was not made during a period of discretionary monetary policy. Adam Smith wrote that the Bank of England had chosen to redeem its notes in gold. And holding to that, there weren't any long-term inflation problems. So Adam Smith was correct in describing the invisible hand process. But if monetary policy fosters a change in the price level either up or down, then I'm not sure that Adam Smith's invisible hand works the same way, and you may end up then following a regulatory route to solve the problem.

If you pursue price stability, you don't have that problem. I can understand a little gesture toward the rate of employment and production capacity. If you have a lot of excess capacity, then you are not as susceptible to a commodity price run-up as you would be otherwise. If you have a commodity price run-up and you don't have any excess capacity, then you can't get resources flowing in to producing more of those commodities to bring the prices down.

MR. SMALL. But we could still get too-big-to-fail. So you would have price stability and high capital standards.

MR. ANGELL. It's basically all you need.

Too Big to Fail

MR. SMALL. Let's turn back to too-big-to-fail. I read a press report in which Paul Volcker seemed to quote Adam Smith having said that banks are always getting in trouble. They're playing with other people's money. They're issuing too many notes. Adam Smith didn't like regulation. So the solution is to keep banks small, so when they fail, they don't bring everyone else down. George Shultz has said something similar: "If banks are too big to fail, then make them smaller." How would you approach too-big-to-fail?

MR. ANGELL. Capital, capital! High capital becomes a deterrent to their getting bigger, because they can't access short-term credit as low as they could otherwise. Their capital becomes a cost of funds for them. So they won't be on the cutting edge; they won't be able to grow as fast as a bank that doesn't have that high capital requirement. I don't see anything wrong with having some banks have 5 percent capital requirements, some 10, some 15, and some 20, if you like. You can have a differential in the capital requirements rather than having rules about how big you can be.

MR. SMALL. Would you leave hedge funds, which are outside the banking sector, unregulated?

MR. ANGELL. Let's think about hedge bank subsidiaries of a bank holding company. If they were, that could be one way of dealing with it, right? But if they're not, the question is, how much will some bank lend them money for? If you have high capital requirements in regard to how large you are, then it seems to me that the cost of those large institutions lending to a hedge fund would be increased, and so it would take smaller banks, in a sense, lending to hedge funds to make that work. I haven't thought thoroughly through the issue of hedge funds.

The Policy Directive

MR. SMALL. We haven't talked too much about the policy directive and the period of time when there was a bias and a tilt.

MR. ANGELL. When I was here, I argued that if we have a directive that's explicit on calling for higher intermeeting rates, that tells me that the FOMC didn't take rates at the meeting as high as they should have taken them. If you take them at the meeting where they ought to be, then, in a sense, the right intermeeting rate should be neutral. That is, if the target fed funds rate is set at a level that you think leads to price stability, then there isn't any need to say between meetings that you think everybody ought to get ready for higher rates. Shouldn't the Fed be acting in regard to the proper target fed funds rate and then not be giving these prescriptions in regard to what it's going to do in the future?

Was the Federal Reserve handicapped in 2005 and 2006 because of this expectation of 25 basis points per meeting? Maybe it was. And so I think that locking in the FOMC to raising rates 25 basis points per meeting is not a good idea. Remembering what Alan Greenspan was talking about in Senator Bennett's office, or in the office in the Capitol that Senator Bennett had secured, if he was saying in 2004 that rates were going to have to be increased, and if he went to the New York Economic Club and talked about asset bubbles and prices? Well, all of that tells me that he thought the target fed funds rate at 1 percent was too low. The right remedy is to change that target fed funds rate.

In February 2004, rather than talking about it, if the FOMC simply moved the rate from 1 percent to 2 percent, it would have been better off, and everyone would have been better off. The Fed ought not to build in and limit itself on future actions. It's always good to be able to have additional information. You want to be looking for additional information, not telling

everybody that they ought to expect low interest rates for an extended period of time. What a tragedy! And I don't know why there isn't more cry against it.

Transparency

MR. SMALL. Representative Gonzalez once accused the Fed of hiding FOMC transcripts. While testifying, Alan Greenspan came under extreme pressure to share transcripts of the FOMC meetings, and he said, "We don't have any." And then recordings were found. Do you remember that episode?

MR. ANGELL. I do. He incorrectly said we didn't have any.

I was always on the side of leaning towards disclosure. The Fed ought not to be keeping secrets. But did I want television cameras in FOMC meetings? No, but I always applauded the attempt to get the minutes out sooner rather than later. I think we got them out as soon as we got to the place where we'd go through the process of monitoring and getting the minutes right before you release them.

I testified before Gonzalez on other matters. The chairman of the Board's [Reserve] Bank Activities Committee had the responsibility to submit the budgets for new buildings to the Board of Governors. Every time a Branch Bank or a Federal Reserve District Bank wanted to build a building, it had to be approved. When Dallas was experiencing a long-term commercial real estate downturn, the Federal Reserve Bank wanted to build a new building in Dallas, Gonzalez's home state. That caught some attention. At the same time, the Minneapolis Federal Reserve Bank building was deficient in its stability, its insulation. That building became too expensive for the Fed to stay in. So I was called before Gonzalez.

My approach was always to share everything. The Congress created the Fed, and we should all be accountable to the Congress on why we made the decisions we made. That doesn't

mean that the Congress should be deciding the building projects at Federal Reserve Banks; we were custodians of that.

MR. SMALL. What about the issues today, about discount window lending and these extraordinary circumstances? If a bank in trouble comes to the Fed and says that it needs emergency discount window liquidity, if the Fed announces that bank X is in trouble, there's a run on the bank.

MR. ANGELL. Before the fact and in the process of decisionmaking, there's no reason to disclose the name of a bank that would precipitate a bank run or any other kind of bank event.

MR. SMALL. Now there's pressure from the Congress for the Fed to reveal more of the individual institution data, about the lending that's been going on.

MR. ANGELL. By getting the lending to AIG and to the very large ones, we invite that, don't we?

MR. SMALL. We talked about the number of Reserve Banks and a hesitancy to open up the Federal Reserve Act, because once it's open a little, who knows what proposals will be made? But we're certainly in a situation now where it would have been unthinkable that we would have been doing these things several years ago, which invites opening all parts of the act.

MR. ANGELL. But we're not close to the Federal Reserve suggesting it be opened up.

Fed's Nonmonetary Policy Responsibilities

MS. HURT. What are your views on the appropriateness of the Federal Reserve's involvement in bank supervision and regulation, consumer regulation, and some of the other activities of the Board not directly related to monetary policy that you had to deal with when you were on the Board?

MR. ANGELL. Well, I've always been a pro-Fed citizen of the United States. If Robert Bork had been confirmed as a member of the U.S. Supreme Court, one of the questions I had for him was, "What do you think about the constitutionality of the Federal Reserve Act?" In a way, I have real questions about the constitutionality, because it does seem to have mixed legislative, judicial, and executive into one organization. The Congress is a legislative branch, and the Congress has delegated its legislative powers to the Federal Reserve, and I think it's been a contributor to the advantage of the United States as compared to being a non-central-bank country.

We were a non-central-bank country for a long time. If you take 1879 to 1913, that's a lot of time that we did not have a central bank. But, at that time, the dollar was effectively on the gold standard, so I guess it was an exchange-level dollar gold standard. But we went on and off of that at times. A disadvantage of the gold standard is that a gold standard would work pretty well if everyone got on at once out of the same rules and stayed on. But when sterling was on the gold standard, the Bank of England wasn't a public central bank; it was a private central bank that decided to redeem its notes in gold. And in deciding to do that, it made its bank a very attractive place for world financial institutions. I think that succeeded very well.

So without some international system as the international gold standard, then it seems to me that you do need to have this done in another body, but I would like to minimize the deflationary and inflationary implications of being a central bank. I agree with Milton Friedman that discretionary monetary policy is more likely to destabilize than to stabilize, and I would prefer that the law be changed to give the Fed only one responsibility—price-level stability. I predict that the law isn't going to be changed. But even without a law change, members of the FOMC can do the next best thing, which is to use commodity price indicators to do their

monetary policy. We successfully moved in that direction with Paul Volcker leading the way in the 1980s and 1990s.

And I think out of that, then, it logically follows that a Chairman of the Federal Reserve wouldn't then say "irrational exuberance" about the stock market. I don't think there was irrational exuberance. The stock market had simply incorporated the future in a more stable price-level world in which interest rates would be lower, so the price-to-earnings ratio on stocks ought to be higher. The better the Fed can foster price stability, then the lower interest rates will be, including long-term interest rates, and thereby the higher stock prices are. So I think Greenspan was wrong in his designation of 6000 on the Dow as being irrational exuberance.

MS. HURT. Banking supervision and regulating consumer credit are responsibilities of the central bank, the Board. And there are other Board responsibilities not directly tied to monetary policy. Is such central bank responsibility appropriate?"

MR. ANGELL. Yes. The Federal Reserve should always have a hand in regulation and regulatory rules, because the Federal Reserve is the principal force that causes economic cycles. If you cause an economic cycle, you ought to at least deal with the cleanup process. So I think the Federal Reserve ought to be involved in the regulatory mix. Once we decide to have deposit insurance, then we have the need for a central bank as a provider of liquidity. And just as we said in October 1987, we'll supply the liquidity that is needed to provide for orderly markets. We wanted enough liquidity to be provided to create those orderly markets.

As a brief historical comment, Governor Benjamin Strong was engaged in a mission in regard to the stock market. He was worried about the increase in stock prices. In a way, Governor Strong had the same problem that Alan Greenspan had—adhering to a price-stability regime and one which went overboard to a deflationary bias because house prices and land prices

were generally declining in the 1920s. Any time you have price stability, you get lower interest rates. If you've got deflation—let's suppose you'd have a kind of permanent 1 percent deflation. Could that work? Well, yes, but interest rates would have to be much lower than they would be otherwise. If you had a permanent 5 percent deflation, interest rates would have to be at neutral. They would have to be at a negative rate. But if you accept negative rates—and what does “negative rates” mean? It means that you go to the bank and you borrow money. It means that the bank pays you, the borrower, the interest rate, doesn't it? So negative interest rates are not outlawed, but I think it's unlikely that we would find the transition to such a state of affairs to be all that helpful.

Deposit insurance requires some regulatory activity for the banks, and that regulatory activity can take place best, in my mind, by capital requirements. So I like the capital requirements to be high enough. Now, American banks contended in the Basel discussions that they were being penalized if bank capital was too high in the United States. Well, they were wrong. If we had capital requirements that made banking in the United States orderly and sound and accompanied by a low-inflation environment, then I don't think we would be that disadvantaged, because interest rates would be lower if our capital requirements were higher.

Mark-to-Market Accounting

MR. SMALL. What are your views on mark-to-market accounting?

MR. ANGELL. Well, I always favor more disclosure to less disclosure, and I really prefer that the Accounting Board set those particular accounting rules, but I think they would do well to do them consistently over time. There's nothing wrong with marking to the market if you're willing to take the consequences of marking to the market.

During the thrift period, thrifts would take on mortgage loans, and they would not mark them to the market. As a result, they could go through these periods, in a way, with maybe less cost to the country in regard to declining house prices than you get into when you mark them to the market. In a democracy like ours, and in private property ownership, capital becomes an important criterion. But I don't think I have to set out all the standards in regard to the accounting.

MR. SMALL. Thank you for your time.